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THE

NEW-YORK JOURNAL OF MEDICINE,

AND THE

COLLATERAL SCIENCES.

EDITED BY S. S. PURPLE, M. D.

> Verumque est, ad ipsam curandi rationem nihil plus conferre, quam experientiam. CELSUS.

VOLUME III.—NEW SERIES.

NEW-YORK:
DANIEL FANSHAW, 575 BROADWAY,
BETWEEN PRINCE AND HOUSTON STREETS.

1849.

TO READERS AND CORRESPONDENTS.

The Review department in this number has been dispensed with in order to give place to the valuable and interesting Report of Dr. Bailey; which report was not received from the Publishing Committee of the New-York Academy of Medicine until the original department of the number was made up. Several items intended for the American Retrospect of this number have been deferred until our next, in order to give place to the "Eulogy on the late Dr. James Macdonald."

The printer of this Journal tenders his apology to its readers for the errors contained in the last number in pages i to viii. and pages 425 to 432, together printed as one *form; which,* through mistake of one of the workmen, was put to press and printed without the usual proof reading, and not discovered till bound.

The following publications have been received since our last:

Chemical Analysis, Qualitative and Quantitative. By **Henry M. Noad.** Lecturer on Chemistry at St. George's Hospital, etc. etc. With Numerous Additions. By **Campbell Morfit**, Practical and Analytical Chemist. Author of Chemical and Pharmaceutic Manipulations, etc. etc. With Illustrations. Philadelphia. Lindsay and Blakiston. 1849. 8vo. pp. 572. (From the Publishers.)

A Practical Compendium of Midwifery. Being the course of Lectures on Midwifery and on the Diseases of Women and Infants. Delivered at St. Bartholomew's Hospital. By the late **Robert Gooch**, M. D. Prepared for publication by **George Skinner**, Member of the Royal College of Surgeons, London. Fourth American Edition. Philadelphia. Ed. Barrington and Geo. D. Haswell. 1849. 8vo. pp. 339. (From the Publishers.)

A Manual of Auscultation and Percussion. By M. **Barth.** Agrégé to the Faculty of Medicine of Paris, etc. etc. And M. **Henry Roger**, Physician to the Bureau Central of the Parisian Hospitals, etc. etc. Translated with Additions, by **Francis G. Smith**, M. D. Lecturer on Physiology, etc. One of the Editors of the Medical Examiner, etc. etc. Second Edition. Philadelphia. Lindsay and Blakiston. 1849. 12mo. pp. 167. (From the Publishers.)

Report on the Cholera of Paris. Published by Authority of the French Government. Translated from the Original, and printed by recommendation of the Board of Health and the Academy of Medicine of the city of New-York. New-York. S. S. and W. Wood. 1849. 8vo. pp. 199. (From the Translator.)

Treatise on Epidemic Cholera. Being Lectures delivered under the Authority of the Faculty of Medicine of Paris. By Ambroise Tardieu, M. D. Adjunct Professor in the Faculty of Medicine; Physician of the Central Bureau of the Hospitals of Paris. Translated from the French, by Samuel Lee Bigelow, M. D. With an Appendix, by a Fellow of the Massachusetts Medical Society. Boston. Ticknor, Reed and Fields. 1849. 12mo. pp. 286. (From the Publishers.)

Cholera; Its Causes, Symptoms, and Treatment, Considered and Explained By J. P. Batchelder, M. D. of New-York. New-York. Dewitt and Davenport. 1849. 12mo. pp. 45. (From the Author.)

Parturition and the Principles and Practice of Obstetrics. By W. Tyler Smith, M. D. London. Lecturer on Obstetrics in the Hunterian School of Medicine. Philadelphia. Lee and Blanchard. 1849. 12mo. pp. 395. (From the Publishers.)

Human Anatomy. By Jones Quain, M. D. Edited by Richard Quain, F. R. S. and William Sharpey, M. D. F. R. S. Professors of Anatomy and Physiology in University College, London. First American, from the fifth London edition. Edited by Joseph Leidy, M. D. In two volumes; with over five hundred Illustrations. Philadelphia. Lea and Blanchard. 1849. 8vo. pp. Vol. 1st 638; Vol. 2d, pp. 639. (From the Publishers.)

The Cholera; Its Causes, Prevention, and Cure. By Charles Richardson, M. D. New-York. D. Appleton and Co. 1849. 8vo. pp. 32. (From the Publishers.)

Cholera; Its Nature, Symptoms, and Treatment. By Joseph Ayre, M. D. Principal Physician to the Hull Infirmary, etc. ete. To which is added the Sanatory regulations of the Boards of Health of London, Edinburgh and Dublin. (Compiled from the pages of the London Lancet.) New-York. Stringer and Townsend. 1849. 8vo. pp. 32. (From the Publishers.)

A Conspectus of the Pharmacopæias of the London, Edinburgh, and Dublin Colleges of Physicians, and of the United States Pharmacopæia. Being a Practical Compend of Materia Medica and Pharmacy. By Anthony Todd Thompson, M. D. F. R. S. etc. etc. The fifth American edition, much enlarged and improved. Edited by Charles A. Lee, M. D. Professor of Pathology and Materia Medica, in Geneva Medical College. From the thirteenth English edition. New-York. S. S. and W. Wood. 1849. 12mo. pp. 324. (From the Publishers.)

The Uses and Abuses of Air; showing its influence in sustaining Life and Producing Disease; With remarks on the Ventilation of Houses and the best method of securing a pure and wholesome atmosphere inside of Dwellings, Churches, Court Rooms, Workshops, and Buildings of all kinds. In three parts. New-York. J. S. Redfield. 1849. 12mo. pp. 249. (From the Publisher.)

Address on the Progress and Dignity of the Medical Profession, Delivered before the Trustees, Faculty, Students and Friends of the Starling Medical College, at its Annual Commencement, Feb. 17, 1849. By B. T. Cushing, Esq. Published by request of the Trustees and Faculty. Columbus, O. 1849. 8vo. pp. 38. (From the Author.)

"The Philosophy of Medicine." An Address delivered before the Graduates of the Medical School of Georgia on the 20th of March, 1849. By John Lecont, M. D. Professor of Natural Philosophy and Chemistry in Franklin College, University of Georgia. Published by Authority of the Trustees of the Medical College of Ga. Augusta. 1849. 8vo. pp. 21. (From the Author.)

Introductory Lecture to the Summer Course of 1849 in the Philadelphia College of Medicine. By Henry Gibbons, M. D. Professor of Institutes and Medical Jurisprudence. Published by the Class. Philadelphia. 1849. 8vo. pp. 24. (From the Author.)

Circular of the Institution for Imbeciles and Idiots, located at Barre, Mass. (From Dr. Wilbur.)

Barrington and Haswell's Medical Bulentine for February:—On Dysmenorrhœa and other Uterine Affections, in connection with derangement of the assimilating Functions, By Edward Rigby, M. D, Fellow of the Royal College of Physicians, &c. &c. Philadelphia. 1849. Royal 8vo. pp. 24. (From the Publishers.)

The following Journals have been received in Exchange:

The Medical Examiner and Record of Medical Science, edited by Francis G. Smith, M. D. and David H. Tucker, M. D. for May and June. (Monthly. Philadelphia.)

The New Orleans Medical and Surgical Journal, devoted to Medicine and the Collateral Sciences, edited by A. Hester, M. D. for May. (Bi-Monthly New Orleans.)

Southern Medical and Surgical Journal, edited by Paul F. Eve. M. D. for May and June. (Monthly. Augusta.)

The Charleston Medical Journal and Review, edited by P. C. Gaillard, M. D. and H. W. De Saussure, M. D. for May. (Bi-Monthly. Charleston.)

St. Louis Medical and Surgical Journal, edited by M. L. Linton, M. D. John S. More, M. D. Wm. M. McPheeters, M. D. and Joseph N. McDowell, M. D. for March. (Bi-Monthly. St. Louis.)

The North Western Medical and Surgical Journal, edited by W. B. Herrick, M. D. and J. Evans, M. D. and Edwin G. Meeks, M. D. March and May. (Bi-Monthly. Chicago and Indianapolis.)

The Western Journal of Medicine and Surgery, edited by L. P. Yandell, M. D. for May and June. (Monthly. Louisville.)

The Western Lancet and Hospital Reporter, edited by L. M. Lawson, M. D. and John P. Harrison, M. D. for May and June. (Monthly. Cincinnati.)

The Ohio Medical and Surgical Journal, edited by John Butterfield, M. D. for May. (Bi-Monthly. Columbus.)

Buffalo Medical Journal, and Monthly Review of Medical and Surgical Science, edited by Austin Flint, M. D. for May and June. (Monthly. Buffalo.)

The Boston Medical and Surgical Journal, edited by J. C. V. Smith, M. D. Numbers for May and June received. (Weekly. Boston.)

The Annalist, a Record of Practical Medicine in the city of New-York, edited by N. S. Davis, M. D. for May and June. (Semi-Monthly. New-York.)

The Medical News and Library, edited by ——, for June. (Monthly. Philadelphia.)

The New-York Dental Recorder, edited by C. C. Allen, M. D. Dentist, for May and June. (Monthly. New-York.)

The British-American Journal of Medicat and Physical Science, edited by Archibald Hall, M. D., L. R. C. S. E., for May and June. (Monthly. Montreal.)

Dublin Quarterly Journal of Medical Science, edited by ——, for February (Quarterly. Dublin, Ireland.)

Monthly Journal and Retrospect of Medical Science, edited by ——. Not received since May, 1848. (Monthly. Edinburgh and London.)

London Medical Gazette or Journal of Practical Medicine, edited by ——, for April. (Weekly. London.)

The British Record of Obstetric Medicine, Surgery and Diseases of Women and Children, etc. etc. edited by Charles Clay, M. D. (Vol. 1st, for 1848.)

☞ Communications intended for publication, and Books for Review, should be sent *free of expense*, directed to the Editor of the New-York Journal of Medicine, care of Daniel Fanshaw, 575 Broadway, New-York. Persons at a distance may direct parcels, *paid* as above, under cover, to Lindsay & Blakiston, Philadelphia; or Wm. D. Ticknor & Co. Boston; or John Wiley, Paternoster Row, London. The attention of Correspondents is respectfully requested to the above, as the publisher is frequently subjected to unnecessary expense for postage and carriage.

All remittances of money and letters on the *business* of the Journal, should be addressed to the publisher.

The advertising sheet belongs to the business department of the Journal, and all communications for it should be addressed to the publisher, under whose exclusive control it is.

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Art. XIV.—The Maternal Management of Children in Health and Disease. By Thomas Bull, M. D. Member of the Royal College of Physicians, Author of " Hints to Mothers," for the management of their health, &c. &c. From the third London Edition. Philadelphia. Lindsay and Blakiston. 1849. 12mo. pp. 406. 70

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THE NEW-YORK

JOURNAL OF MEDICINE.

FOR JULY, 1849.

PART FIRST.

ORIGINAL COMMUNICATIONS.

Art. I.—*History of the Asiatic Cholera at Quarantine, Staten Island, New-York, in December*, 1848, *and January*, 1849. By John W. Sterling, M. D. &c. Assistant Physician Marine Hospital.

The first appearance of the Cholera at Quarantine, Staten Island, was on the 2d December, 1848. Prior to this date there was no premonition on this side of the Atlantic, of its intended invasion; none of those indications which heretofore have been regarded as heralds of its approach were apparent: at least its immediate advent was not apprehended by the physicians of the Marine Hospital; for no preparations had been made for its reception.

While, therefore, apparently secure, suddenly was it announced to us at the Quarantine that a ship, with the cholera on board, was lying off in the stream. The packet ship New-York, from Havre, had cast anchor within the Quarantine buoys on Friday night, the 1st of Dec. and early the next morning was visited by Dr. Harris, the Deputy Health Officer.

The commander of this vessel was Capt. Lines. He set sail from Havre on the 9th November, with 385 passengers, of whom 21 were in the cabin, 331 in the steerage, and 33 constituted the crew. On boarding the vessel, it was ascertained by Dr. Harris that seven of the steerage passengers had died during the last week of her voyage. That a disease resembling the cholera-morbus, and supposed by the captain to be of this character, made its appearance among the steerage passengers, who were Germans and French from Havre, while the vessel was at sea, not far from Cape Sable. On this point, however, we will cite what Dr. Whiting, the Health Officer, reports:—"At the time the first cases occurred the ship was in N. lat. 42°, long. 61°, about 140 miles S. S. W. from Sable Island. On the 23d and 24th, the two days preceding the appearance of the cholera, the wind was N. N. W.; on the 25th it changed to the southward, with squalls and rain. In the morning the barometer was 30 inches, and fell during the day to 29½ inches; thermometer 60° of Fah. Sunday and Monday wind westerly and fresh; Tuesday 28th, moderate from N. W.; barometer 30 inches: thermometer 32°."*

The ship, as I have just stated, dropped anchor on Friday night, and on Sunday afternoon all the steerage passengers (with the exception of one individual, who went to the city, and eleven others who had been previously sent up sick with the cholera to the hospitals on the hill, concerning whom I will speak more particularly by and by,) were brought ashore. The weather, since the arrival of the packet ship New-York, had been wet and quite uncomfortable, and there was no immediate prospect of its change. These passengers, for the most part, had resided a considerable length of time at Havre, where, at the time of their embarkation, there was no existence of the cholera. They were landed at the public store dock; and the north public store, and the basement of the south public store, were set apart for their reception.†

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* See Dr. Whiting's report on the subject of the Asiatic Cholera, &c. p.11.

† The north public store is two stories high besides the basement, which is below ground, and the attic which has six sky lights. It is 116½ ft. long by 36½ broad, in the clear, the walls being about a foot thick. The heighth of the ceiling of the first story is 9 feet, eight feet only to the projecting planks, above which are two or three feet asunder. It has seven windows, three large folding doors, a large hatchway above, and two stair ways communicating with the second floor. The second story is 6½ feet high to the beams, 7½ to the ceiling, has two hatchways to the attic above, and stair ways and eight windows.

The south public store is four stories high, including the basement which is above ground. This basement is about 90 feet long, by 42 wide. Its heighth to the ceiling is 9½ feet, to the beams above 8½ feet. It has four windows and four large folding doors. The upper stories of this south store were subsequently converted into the cholera hospital. The apartments extend the whole length of the buildings.

Immediately the most efficient measures at command were adopted to render them comfortable. Beds, bedding and bedsteads were provided; means for obtaining an adequate supply of food immediately resorted to; and the three hundred or more emigrants soon conducted into, to say the least of them, well sheltered domiciles, in which, doubtless, they were quite as well accommodated as they had been in the steerage of the vessel from which they debarked.

To Dr. Da Cunha's supervision the charge of the public stores was committed, and in the apartments mentioned were stowed, with as much order and neatness as circumstances permitted, male and females, old and young, beds, bedding, chests, bags, and boxes: for it was impossible to separate these passengers from their property.

At the time of landing the weather was wet and chilly, and the greatest anxiety was to get them under shelter immediately, and make them warm and comfortable, so that very little opportunity was afforded at that time for washing and drying their garments, and had there been any fomites adherent thereunto they were of course brought into the tenements which they occupied. Besides, they had daily, if not hourly, access to their luggage, so that any infectious matter lurking within them could freely escape, and, if possible, contaminate the surrounding atmosphere. As to ventilation of the apartments occupied by the emigrants, it must have been very inefficient; the doors being generally kept shut, unless for ingress and egress. The long chambers extending the whole length of the building; their low ceilings and projecting timbers must have precluded a free circulation of air, and detained much that was noxious: so that, considering the state of the atmosphere in which these persons were immersed, it is a matter of surprise that the cholera did not make wider havoc among them. Besides, the apartments being dark and gloomy, the weather often preventing exercise out of doors, the incarcerate condition of the inmates must have rendered them despondent,* and consequently more susceptible to its attack. Of all the sanitary measures, therefore, adopted, probably none were better calculated to enable the constitution to ward off this malady than the wholesome provisions with which they were liberally supplied, and that the supply was ample was evident from the quantity of fragments which were wasted.

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* It is evident that these emigrants found their confinement irksome. On

I must not omit mentioning that, at a much more advanced stage of this visitation, Prof. Grant's Disinfecting compound was freely used at the public stores; but how far the expulsion of the cholera therefrom was attributable to this agent, I do not presume to say. Hereafter I will have occasion to say more about it, as it subsequently came under my immediate inspection.

On the 3d of December the third and fourth stories of the south public store were converted into cholora hospitals, about one hundred of the former inmates—convalescents—still remaining in this building. In the afternoon nine patients were transferred to them from the hospitals, or shanties, on the hill, which patients had been sent up to these shanties from the ship New-York, in the morning, and on the 2d, sick with the cholera. Two others were also sent up at the same time, but died before the transfer was made. For the sake of brevity I will set down the admissions into the cholera hospital in a tabular form, viz :—

On the 2d December, admitted into the shanties on the hill, from the ship New-York, 6 cholera patients.
do. 3d do. do. do. 5 do. do. of whom 7 died.
(The above were transferred to the Cholera Hospital, except the two who died on the hill.)
On the 4th December, admitted to the Cholera Hospital, South Public Store, 4 cholera patients, of whom 3 died.

do.	6th	do.	do.	5	do.	do.	do.	4 do.
do.	7th	do.	do.	3	do.	do.	do.	3 do.
do.	8th	do.	do.	3	do.	do.	do.	0 do.
do.	10th	do.	do.	2	do.	do.	do.	1 do.
do.	11th	do.	do.	1	do.	do.	do.	1 do.
do.	12th	do.	do.	3	do.	do.	do.	1 do.
do.	13th	do.	do.	4	do.	do.	do.	0 do.
do.	14th	do.	do.	6	do.	do.	do.	4 do.
do.	15th	do.	do.	5	do.	do.	do.	3 do.
do.	16th	do.	do.	3	do.	do.	do.	2 do.
do.	17th	do.	do.	5	do.	do.	do.	1 do.
do.	18th	do.	do.	1	do.	do.	do.	0 do.
do.	19th	do.	do.	1	do.	do.	do.	1 do.
do.	20th	do.	do.	2	do.	do.	do.	0 do.
do.	29th	do.	do.	1	do.	do.	do.	1 do.
do.	31st	do.	do.	1	do.	do.	do.	0 do.
				61 cases.				32 deaths.

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or before the 14th of December, when the Cholera was at its heighth at the public stores, they began to elope in squads. Sometimes twenty or more passed over the walls in one day, including women and even children, carry-

Fifty eight of these were from the ship; of the other three, one was Mary Ann M'Cabe, formerly an assistant nurse in the hospital. At the time of being seized with the cholera she was at the public store, laboring under great debility from necrosis of the bones of the fore arm. She was attacked at half-past seven P. M. of the 6th with violent vomiting and purging of a rice-water fluid, and other symptoms of cholera. She died in about twenty hours. Another was Henry Fromen, a German, admitted into the hospital in October. He was attaked on the 6th, also, and died in less than four hours. The third was Mrs. McKenna, a nurse in the cholera hospital; a few days after commencing her duties (29th) she was taken down with the disease, and died on the 20th January from congestion of the brain.

For the sake of precision I must revert to the time when the first patients were sent from the ship New-York to the Marine Hospital. According to information received from Dr. Gallaer, four male passengers sick with the cholera, were, on the 2d December sent up to the middle shanty, (which is situated on an elevated part of the quarantine grounds,) and on the 3d two more. On the 2d Dr. Alden received three and on the 3d two more; of the latter, two died in the hill-shanty, the other nine were transferred to the cholera hospital at the public store, which was committed to the care of Dr. John Gallaer, who continued to have the charge of the patients, there until the disease ceased.

From the 3d to the 20th December the shanties, or hospitals on the hills, into which the above cases were admitted, remained free from the cholera.

To Dr. Hubbell's hospital, also on the hill, a man who was convalescent, was sent up from the public stores on the 6th of December. He was seized with the cholera the next morning, was immediately sent back, and died the same day. Only one more case occurred in Dr. H.'s hospital, and that not until the 20th of December. This last was a German, re-

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ing at least a part of their effects with them. By this means the number sequestered was reduced about one half; the most enterprising escaping to the city of New-York or adjacent villages. One of the Germans who is said to have gone to the city in a small boat, was sent back the next morning sick with the cholera. He was previously in good health.

cently from New-York, who had not in any way communicated with the cholera-patients. This man recovered. Finally, in the hill hospital, in charge of Dr. Da Cunha, three of the old inmates were attacked with this disease on the 6th, 7th and 8th of November, after which no new cases broke out therein until the 21st of said month.

On the 6th of December the convalescents—old inmates—who had for a considerable time been tenants of the public stores, were sent to the other hospitals, and distributed as follows, viz:—

To the main, or lower hospital, . . .		6	convalescents,	which then contained about	110	patients.
do. Hill	do.	40	do.	do.	180	do.
do. Dr. Alden's	do.	20	do.	do.	100	do.
do. Dr. Gallaer's	do.	15	do.	do.	80	do.
do. Dr. Hubbell's	do. about	9	do.	do.	60	do.
do. Surgical	do.	10	do.	do.	68	do.
Total sent from the Public Stores on the 6th.		100	Total in all the hospitals.		598	do.
Which, added to the emigrants brought ashore from the packet-ship New-York, ...					300	do.
would make the whole number of inmates in the Marine Hospital					898	

exclusively of the patients in the Small-pox Hospital, officers and subordinates.

As next in order, I will take up the Main, or Lower Hospital, placed under my immediate care, as it was in this building, the cholera appeared in its onward course.

The lower hospital is situated about 325 yards in a south-westerly direction from the public stores, nearly on the same level with them, and but a few feet further from the water, especially if we measure to the place from which, within a few years, it has been filled in. The other hospitals are at an elevation of about thirty or forty feet above this, and in a north-westerly direction from it.

On the 6th of December six convalescents from the public stores were transferred to the hospital. They were admitted into Ward No. 3, in the upper story of the building, and were not permitted to enter the other apartments. So far as I could ascertain, they implicitly complied with this prohibition.

On the night of the 6th *Isabella McNeil,* a patient in Ward No. 4, aborted. She had been greatly debilitated by previous dysentery, diarrhœa and depression of spirits from sad bereavements, and her mind was completely unhinged, so that it seemed impossible for her system to sustain the shock of any further misadventure. Abortion, therefore, and its consequences prostrated her beyond endurance, and she sank on the morning of the seventh. So striking were the symptoms which ushered in her death, so characteristic of the collapsed close of the cholera patient of 1832, that I called in one of the assistant physicians to note their peculiarity. I will not say that Isabella McNeil died with symptoms of the cholera, for without their aid there was ample cause for death. Nevertheless, her appearance brought to mind an old acquaintance, and led me to look for his speedy advent.

Four days after her death, *Judith Smith*, 20 years of age, a patient in No. 2, directly underneath No. 4, while convalescing from bronichitis, able to rise from her bed and sit up only the day previous, was attacked with the cholera. She was seized with this disease about 11 o'clock, A. M. of the 11th and died on the 14th at 1, P. M.

December 12th, *Mary Kelly*, aged 19 years, in Ward No. 3, while slowly recovering from typhus fever, was seized about noon, with violent vomiting of a rice-water colored fluid, and other concomitant symptoms of cholera, with the exception of purging. She recovered.

These two cases are related in full in the Annalist, and are the only cases in which I employed, throughout, Stevens' Saline solution. From its decidedly beneficial effects in restoring or sustaining the animal heat, in allaying thirst, cramps of the stomach, and in diminishing the vomiting, I much regret having abandoned its use (or that of other salines) for more popular but far less scientific remedies. I am persuaded that, depriving cholera patients of cooling drinks is a false notion. It is what they crave, what they incessantly call for, and in later cases wherein I permitted patients to drink it, I have had no reason to regret such permission. I recall to mind the case of a man who, in 1832, while under collapsed cholera, escaped from his ward in the New-York hospital, with no covering but his shirt, in the night, went to the pump and drank his fill. He took no other medicine and recovered. As the salts of the blood are freely thrown off in this disease, the propriety of adding some saline, in moderation, to the cooling beverage, is evident.

Bridget Cullen was attacked next. She was admitted directly from the ship Sarah Bridge on the 14th December, and placed in the south room of Ward No. 4, a room entirely distinct, and at a considerable distance from the other cholera patients. On her admission she complained of being cold and weary. She was immediately put in bed, covered with warm blankets, and ordered generous nutriment. On the 15th, the bowels being confined, an eccoprotic mixture was given, which seemed to operate favorably. All that she complained of was coldness and debility. Indeed these, with inertia, were the only prominent symptoms. Her appetite was very small, but there was no indication of organic disease or disturbed function. On the 18th, however, the functions were disturbed; during the night she was attacked with violent vomiting and purging. At half-past eight, A. M. of the 19th, I found the evacuations persisting; her eyes deep in their sockets, nose pinched, features collapsed, and instead of the plumpness of the body perceived the day before, it was shrivelled: the color of the face and extremities livid, pulse scarcely perceptible at the wrist, and coldness of the surface. Rubefacients and hot applications, calomel and morphine, calomel and opium, and all that sort of thing, were administered in vain. She died at midnight, about thirty hours from the onset of the cholera.

Ann McAtee, 16 years, one of the convalescents from the public stores, on the 6th of December, was placed in Ward No. 3. A few days afterwards symptoms of Scarlatina presented themselves. She was sent to bed, treated accordingly, and after the febrile symptoms were removed, debility alone apparent, she was permitted to rise. On the 19th a mixture of Infu. Cinchon ℥xij. *c* Vini Madeira ℥iv. was ordered in doses of a wineglass-full three times daily. At ten o'clock she was seized with vomiting, purging and cramps, which for a time were arrested by means of peppermint tea, laudanum, sinapisms and bottles of hot water. At nine A. M. of the 24th I found her cold and pulseless. Hot air was introduced under the bed-clothes, calomel and salphate of morphine given. She died at one o'clock P. M. same day.

Bridget Cannon, also one of the convalescents from the public stores, same ward, attacked on the 19th, had premonitory diarrhœa. Her mouth soon became very sore from mercury. She recovered.

Margaret Monahan, $4\frac{1}{2}$ years, a passenger in the Montreal; arrived and admitted December 6th into Ward No. 4. Had Bronchitis, subsequently Scarlatina. On the 20th, almost well, sitting on her mother's lap, cheerful and playful. On the night of the 21st was seized with profuse vomiting and purging of a colorless fluid, with which her clothes were constantly drenched, so that she could not be kept warm. Other symptoms of cholera present. Cries for cold water incessantly. Treatment, warm stimulating embrocations; hot bottles; mint tea; carbonate of soda and peppermint; kreosote occasionally for the vomiting; milk punch and brandy. Died on the 27th, 9 P. M. with symptoms of congested brain.

Ann Brennon went to the public stores to work on the 6th December, but from timidity soon returned. She was in Ward No. 4. On the night of the 21st December, she was attacked with violent cramps, vomiting and purging, for which, and with temporary relief, the nurse gave her copious draughts of mint tea; applied mustard cataplasms to the abdomen, and hot bottles to the extremities. Early next morning I found her with features collapsed, pulse extremely small; ejections and dejections very frequent; surface cold, extremities livid. She was apparently in full health prior to the attack, and recovered in eight days. Calomel and morphine were administered in moderate doses every three hours.

Catharine Welsh, 38 years of age, in Ward No. 4, was delivered of a male child December 3d, which lived four days. While recovering from the puerperal state, sitting up in bed, she was, on the 22d December, attacked with severe pain in the stomach; distressing, burning sensation and great oppression at the precordial region. Has frequent, copious whey like dejections and ejections; features not bad; pulse good. Ordered: Cal. 5 grs. Sulph. Morph. $\frac{1}{4}$ every three hours. During the night the discharges from the bowels were almost incessant, and so continued throughout the 23d; but afterwards diminished in frequency and became greenish, or of a copperas color. Her countenance now became much darker, typhoid symptoms ensued, and she died on the 3d January with indications of congestion of the brain. She was much distressed with hiccough, and severe convulsions were not infrequent during the 36 last hours of her existence. Treatment—carminitive mixture; Scidlitz powders, kreosote, mint tea, blisters, milk punch; brandy and water, chickens oup and farina for nutriment.

Bridget Fitzsimmons, aged 23 years, arrived in the ship Charlotte, admitted into No. 4, with dysentery, December 15. On the 18th the state of her bowels being very much improved, though debility was great, she was ordered a wine-glassfull of Infusion of Bark with port wine, two parts to one, every six hours. On the 20th she had frequent copious rice-water dejections; on the 23d frequent vomiting and purging, which abated greatly on the 24th. 25th, the throat was exceedingly painful and highly inflamed; for the removal of which state a strong solution of Nitrate of silver was applied, and the Mistura Guaiaci administered. December 30th, Erysipelas attacked the left side of the face and ear, gradually invading the scalp of that side. January 3d Scalp of the right side affected, the left scaling off. February 5th, Inflammation of the velum, uvula and tonsils, for which a gargle of the Tinct. Capsici was ordered. 8th. Says she is choking, and has a swelling in the throat which she can feel with her finger. Discovered a large tumor, semi-spherical, of a deep red color, tense, resting upon the basilary process, and blocking the pharynx. Punctured it with a bistoury, pus was ejected with force, and the tumor collapsed. On the 10th, the swelling has disappeared and she swallows with ease. 14th. Has a purulent discharge from the left ear, with pain, for which a blister was ordered. 16th. Better, daily improving. April 3d. Discharged, cured.

The treatment was, in the early stages, with Calomel and Morphine; afterwards it was varied p. r. n..

Jane Nevins, assistant nurse of No. 4. After diarrhœa of three days was attacked with the cholera on the 27th December, at 2½ o'clock, P. M. At 3½ I found her in bed purging and vomiting profusely and almost incessantly, with violent cramps in the hands, legs and feet, and an intolerable burning sensation in the thorax. Her agony was intense. Bottles of hot water and sinapisms, embrocations of different kinds were applied; air, heated by means of the spirit lamp, introduced under the bed clothes: calomel, capsicum and camphor administered but not retained, for during many hours every thing was rejected as soon as swallowed. At length $_4$ gr. of morphine was retained and she slept quietly for three hours. She then awoke free from suffering, calm, collected; disposed of her little property, rapidly sank and died at $8\frac{1}{2}$ A. M. of the 29th.

Bridget Murphy, ætat. 19, arrived in the Rosalinda, admitted with fever 19th December, and put in the North room of Ward No. 1. On the 22d the febrile symptoms were followed by a scarlet efflorescence, which gradually declined, and feeling much better on the 27th, she was permitted to rise and put on her clothes, though still debilitated. In the afternoon she was attacked with vomiting, the pulse became very feeble, her voice scarcely a whisper; eyes sunk deep in their socket, nose pinched; skin of the face, body and extremities of a very dark hue; passages from the bowels said to have been two, rather yellow.

Ordered, ℞. Submur. Hydrarg. ℈j. Sulph. Morph. $\frac{1}{4}$ gr. statim, warm bottles to the feet; mint tea. $10\frac{1}{2}$ P. M. vomiting more frequent; fluids, like rice-water, ejected. ℞. Pul. Capsici, ʒj. Submur. Hydrarg. Pulv. Camph. *āā*. ʒss. ft. pulv. No. vi. unum om. ter. hor. 28th. $8\frac{1}{2}$ A. M. vomiting persists; skin of a leaden color; surface cold, pulse perceptible, no cramps; contin. remed. $3\frac{1}{2}$ P. M. countenance clearer, tongue warm; surface warmer; vomits but seldom; pulse stronger; voice louder; feels better; ℞. Pulv. Capsici, Camphoræ *āā* gr. xij. Submur. Hydrarg. grs. vj. ft. pulv. No. iij. un. om. 4ta. hora. 10 P. M. continues better, still no urinary secretion; voice and pulse stronger; skin and tongue warm; one alvine dejection, thick, greenish; ordered farinaceous food.

29th. $8\frac{1}{2}$ A. M. Vomiting has not returned since yesterday afternoon; three alvine dejections in the course of the night, greenish and of the consistence of thick mucilage: says she feels comfortable; skin pleasant; pulse stronger; tongue rather cool; countenance dark; lips blue; no secretion from the kidneys. Repeat the powders as last directed: arrow-root as nourishment. $1\frac{1}{2}$ P. M. A red efflorescence on the skin, which disappeared in the course of the day; skin warm; pulse slow, full, soft; countenance sunken; nose pinched; lips purple. One small thick dejection of the natural color. January 3d, has taken no nourishment daily since last report. The skin

skin is now of a dark red; tunica conjunctiva red; feet cool; and typhoid symptoms apparently advancing. ℞. Nitras Potassæ ʒj. Pulv. Camph. Submur. Hydrarg. *āā*. gr. vj. ft. pulv. No. viij. ter in die. Bottles of hot water to the feet. January 4th. Reaction. A scarlet redness diffused over the body; eyes red and painful; headach, sore throat; increased heat; frequent pulse; thirst. Ordered Spts. Mindereri; flaxseed; arrow-root.

In two or three days the cuticle became dry, harsh, and cracked, desquamating on the arms, body and legs, and peeling from off the hands and feet in plates; the cutis soon resuming its bright natural hue. Medicines were now dispensed with, and more liberal diet allowed.—For a while, this girl seemed to improve; her appetite and strength increased daily; but she was frequently indisposed, occasionally from cough, or disordered bowels, so that she seldom was able to sit up but a few days at a time; at one time her color would be remarkably white, and again very dark for days in succession; at length she became greatly emaciated, cachectic, and died on the 24th of May, (as stated by the physician who has recently attended her,) with ulceration of the bowels.

Certain peculiarities attendant upon the foregoing case have induced me to transcribe it fully from my notes, and this must be my apology for so doing. This was the first case of cholera in Ward No. 1. The patient had been confined to her bed since her admission until she was seized with vomiting, when weary of the bed, she was allowed to sit up for a little while. The scarlatina had barely run its course; no desquamation of the cuticle had taken place when the cholera set in. There was also a modification in the cholera which supplanted it: the dejections were few, seldom of a rice-water color, yet the other symptoms were the same precisely with those which presented themselves in other cholera cases. It seems that the peculiar efflorescence spoken of has also been noticed by Dr. Müller, who, in his reports of the cholera at St. Petersburg in 1848, says, that in the "*stadium reactionis*, Erysipelas faciei. furunculus, and a peculiar exanthem (which consisted of red spots, running a course of from one to three days, and terminating in extensive epidemic desquamation) often followed this stage."—In the foregoing cases are related all the symptoms which presented themselves among the cholera patients under my care at quarantine. Cramps were frequently absent; a very distressing burning sensation in the thorax was often complained of, and sometimes this distress was referred to the scrobiculus cordis: vomiting was sometimes absent almost in toto; and again the dejections were few in number; hiccup occasionally presented; aphonia was constant, except in those who had not reached the age of puberty, in whom the voice was sometimes remarkably shrill and resonant: the countenance in almost all was dark; in children however pale and ghastly; no urine was secreted until a crisis took place, and its appearance did not always indicate recovery: it generally however, was a happy omen except in cases which were followed by consecutive fever. I did not notice those muscular contractions, extension of limbs, &c. after death, which were visible in 1832, and were so horrible to behold.

I shall now give a cursory glance at the remaining cases which came under my charge. Choleroid cases were neither recorded nor reported.

We have now arrived at the period when the cholera reached its acmé at the main hospital, and fortunately this period was short.

Catharine Smith, aetat 26, admitted, November 25th, with typhus, afterwards had rheumatism, almost well, but debilitated, was sitting up when attacked about one o'clock, A, M. December 29th, with copious rice-colored ejections and dejections. So prostrating were their effects that she fainted. She died at 11½, P. M. Principal remedies, heated air, stimulating embrocations, sinapisms, camphor, calomel, and capsicum.

Bridget Clark, in the same room, aetat thirteen, seized with cholera at 10 o'clock, A. M. of the same day; died at 10, P. M. of the 29th. Treatment same as the last. Rejected all her medicines.

Catharine Mahoney, also in the same room, an emaciated hectic subject, was attacked through terror at the moment Catharine Smith died. Hot air applied. Internal remedies rejected. Died at 9 o'clock, A. M. of the 30th.

Mary McDermott, in No. 2, an old inmate of the hospital, almost exhausted by previous disease, attacked on the night of the 29th; died a few hours after the former patient. In the way of remedies nothing but stimulants externally and internally could be resorted to; her vital energy was almost gone before she was seized with the cholera.

Rachel Tovay, in the same room with the former; apparently well, walking about the ward at 10 o'clock; was attacked about 1½ o'clock of the 30th, and died in five hours. Heated air applied, calomel, camphor, capsicum, &c. all rejected.

Sally Carter, assistant in the kitchen, attacked December 31st; removed on the 2d January to Ward No. 3. Recovered. This woman had violent and protracted paroxysms of hysteria at the commencement, for which large doses of the tincture of assafœtida and emetics were given with much benefit.

The 30th December was truly a dismal day, both within and without doors; yet it may be considered as the finale of the cholera visitation at the lower hospital; for soon the wind changed, and on the 31st the thermometer fell 10°; that is down to 21° of Fahrenheit: it became colder still on the 2d and 3d of January, when the mercury sank to 9°. Two cases more, though some of the diagnostic symptoms were wanting, may be considered as occurring after this date. A woman and two children were brought into this hospital from the ship Ohio, (a ship which sent in a host of patients with typhus fever,) on the 4th January, and placed in beds directly opposite to Sally Carter. They were in a very weak condition. On the 6th the mother was seized with vomiting and purging of rice-colored fluids, which were occasionally checked by carminative mixture and wine negus. Her countenance was pale instead of being dark or livid. She was so much exhausted that she seemed to be unconscious of her sufferings, and utterly helpless. She died on the 9th. Her eldest child died on the same day. This child had a ghastly, cadaverous appearance; her features collapsed, and body cold: little or no pulse for 24 hours previous to death. Excitement or stimulation was utterly impossible. Vital energy could not be roused. She sunk without visible distress, without any morbid secretions or excretions. I do not positively say that this last was a case of cholera, and probably would not have had the slightest suspicion that such was her disease, provided she had not been in the same room with two or more cholera patients.

With these last three cases (which were not reported, as it would not have been prudent to excite any further panic) the number of individuals, subjects of the cholera in the lower hospital was 19, of whom 13 died. A very large mortality, owing, in some measure to the state of the patients at the time of seizure.

The other hospitals visited by the cholera are on much higher ground than that of which I have just spoken. After the first patients were removed, on the 3d of December, to the hospital at the public store, no reappearance of the disease took place in them, (excepting three cases in the hill-hospital on the 6th, 7th and 8th,) until the 20th of the month.

In the Hill Hospital, which during the month of December contained on an average 180 patients, some of them two in one bed, there occurred on and after the 21st, 12 cases of cholera, 6 of whom died.

In Dr. Alden's hospital, after the 20th, 5 cases, 3 deaths.
" " Da Cunha's surgical shanty, " 6 " 1 "
" " Hubbell's hospital, " 1 " 0 "

This last was the German already spoken of.

In the above hospitals no case was reported later than the 28th of December, excepting one William Dickson, who, it was said, sickened with the cholera on the 5th of January, and died on the 14th. I speak now of its first visitation ; for it broke out again in the public stores in the first week in April, and in the upper hospitals in May, and up to the present date, May 30th, has numbered its 43 victims. In the first period none but emigrants were attacked. In summing up we find the aggregate thus :

Steerage passengers of the ship New-York, seized with the cholera in December, ...	58	29 died.
Other inmates, patients in the Marine Hospital, do.	48	25 do.
Total cases,	106	54 deaths.

With respect to the state of the weather, it was so mild until the 22d December, that the furnaces of the lower hospital kept the wards at a comfortable temperature; on and after this date it became necessary to kindle fires in the different apartments.

The following table is condensed from the Meteorological Register of the New-York City Hospital. The distance from the Marine to the New-York Hospital is seven and a half, or not exceeding eight miles. In winter, however, it is about two or three degrees warmer at Quarantine than in the city, owing, probably to the more immediate influence of the sea-breezes. Fogs are much denser and more frequent at the former than the latter locality.

AVERAGE OF THERMOMETER AND BAROMETER.—QUANTITY OF RAIN.—PREVALENT WINDS.	From Dec. 2d, 1848, to Dec. 11th—10 days.	From Dec. 12th to Dec. 21st—10 days.	From Dec. 22d to Dec. 31st—10 days.	From Jan. 1st, 1849, to Jan. 4th, inclusive, 4 days.
Average range of the Thermometer.	53 1-6°	45 1-3°	30 4-5°	20 5-6°
highest degree.	68°	64°	46°	34
lowest "	40°	35°	21°	* 9°
Average range of the Barometer.	30in.	29 99	30 11	29 92
highest No. of inches.	30 24	30 19	30 40	30 20
lowest " "	29 63	29 83	29 63	29 70
Quantity of rain fallen.—Inches	0 40	0 47	5 50	0 00
Prevalent winds, ratio of easterly to westerly.	E. to W. 8 7	E. to W. 3 2	E. to W. 17 13	W. and N. W.

* 2d and 3d January.

On the afternoon of the 22d December Professor Grant's Disinfectant was distributed throughout the several wards of the lower hospital; and, if productive of no other benefit, evidently served to allay much apprehension by inducing the patients to believe we were doing something to expel their invisible enemy. But the use of this anti-septic did not preclude strict attention to ventilation and cleanliness, which, doubtless, are the most efficient disinfectants. I am persuaded that the death blow was given to the cholera by the severe weather which commenced on the eve of the 2d of January. The stroke was sudden, overpowering, and inflicted at the very moment the cholera had reached its acmé. The nurses were in a panic, and some talked of resigning; but as soon as the weather became cold, their apprehensions were allayed. Nevertheless, Professor Grant attributes the expulsion of this malady from the public stores on the 20th of December, to the use of his disinfectant. It is true the disease ceased to occur there after this date, although there still remained food enough to feed and cases enough to propagate it. I have no desire, therefore, to detract from the merits of this agent, still its use should not interfere with free ventilation and thorough ablution.

We will now recapitulate what we have said in relation to the course of the cholera at quarantine. On the 2d and 3d of December 11 patients were sent up to the hill hospitals, with their effects, directly from the ship New-York, laboring under the cholera. On the afternoon they were transferred, with the exception of two of them deceased, to the cholera hospital at the public stores. The disease did not reappear at these upper hospitals (notwithstanding 94 convalescents, who had been for several days in contiguity with the German and French emigrants, were distributed throughout their wards then crowded with patients, on the 6th of December) until the 20th of said month; whilst it appeared in the lower hospital, adjacent to the water, on the 10th of December, to which hospital six convalescents only were sent. Besides, when it did break out in the lower hospital it did not originate with the convalescents admitted, nor in the ward in which they were located, but in the story below it and on the opposite side of the building, and afterwards skipped about from ward to ward, without any regard to contiguity, until it reached its acmé.

There was one very mysterious circumstance noticed in the late visitation of the cholera at Quarantine, if we view it with the eye of the contagionist, I allude to its restricted limitation, or insulation. By this I mean to imply that the cholera was confined to the Quarantine enclosure. It did not overleap its barriers. Notwithstanding more than one hundred of the emigrants landed from the ship New-York, scaled the walls and fled to the city, or adjacent villages, this disease would not accompany them; neither did the numerous visiters, whom curiosity or humanity incited to visit the hospitals receive or convey it. Also, as I am credibly informed, as soon as these emigrants were brought from the vessel, so soon did the cholera abandon it. The crew, who remained on board, who scrubbed and cleaned the planks, broke up the bunks in which the steerage passengers had slept for weeks, and ventilated and fumigated the hold or between decks, did not contract the disease, but remained quite healthy. The cabin passengers, who with one of the steerage, went direct to the city, with their effects, did not suffer from the disease nor communicate it to others. From the foregoing, then, we are naturally brought to the conclusion that if the cholera be contagious, a peculiar constitution of the atmosphere must exist in order to favor its propagation.

It might now with propriety be asked, Why I did not send my cholera patients to the hospital appropriated for them? I answer that, whatever may be opinion now, I did not then view the cholera as contagious; that if we had the peculiar cholera atmosphere around us it would soon invade all the hospitals, and I was therefore averse to exciting unnecessary panic, well aware that this would contribute greatly to extend the ravages of this malady. Besides, in a disease which runs its course so rapidly, every moment of time is precious, and the least delay may put the patient beyond the power of remedies. Also, cholera patients do not bear transportation with impunity.

There is such a striking coincidence between the manner of introduction and duration of the cholera at New Orleans, and its visitation at the Quarantine establishment last winter, that I cannot refrain from noticing a few remarks of Dr. E. D. Fenner on this subject, as published in the Picayune. This narrative tends strongly to corroborate the opinion that the cholera can be introduced into a country by vessels from remote parts, and when so introduced propagated by contagion; an opinion gaining ground daily with some of our most enlightened physicians, even of those whose views were diametrically opposite in 1832.

There is certainly, in the mode of introduction of the cholera in these two places, much to stagger the belief of the noncontagionist, while the testimony on the part of the contagionist is thereby strengthened; yet, if we sift the matter thoroughly, we will find that there was a fortuitous concurrence of incidents well calculated to throw doubt on the one side, while at the same time it confirmed the faith of the other.

The cholera had already prevailed in Europe for a considerable length of time. Its march was still onward and westward, and as it advanced, according to those who have watched its journeyings, at the rate of 300 miles per month, or thereabouts, we had ground for the belief that it was not far distant.

The ship Swanton sailed from Havre, according to Dr. Fenner, on the 2d or 3d of November. The cholera did not prevail, or even exist there, at the time of her departure, and twenty-six days had elapsed from that period ere a single death occurred on board. The cause of this death was a looseness of the bowels simulating dysentery; and sixteen more deaths occurred from a similar affection before the ship entered the port of New Orleans. But the cholera was prevailing as an epidemic in some parts of Germany, and some of these passengers were Germans; but whether they had recently been in that country, or had abode in the vicinity where this disease was raging, we are not informed: for aught we know to the contrary, they may have overtaken the cholera in its transit across the ocean.

Be this as it may, the Swanton entered the harbor on the 11th of December, with 280 passengers, Germans and French, principally the former. On the morning of the 12th a woman was brought from on board in a state of complete collapse, having been attacked the previous night with violent vomiting purging and cramps, and her disease was pronounced by competent authorities to be a genuine case of Asiatic Cholera. She died at 6 P. M.

On the morning of the 13th, a man who also was a passenger in this vessel was brought into the Charity hospital, collapsed likewise. He had been walking about the city on the 11th, though laboring under a slight diarrhœa. On the 12th he left the ship and went to a boarding house near Podryas market; when brought into the hospital he was cold and pulseless. He died at 6 P. M. on the day admitted. Three other cases were brought in on the same day, from different parts of the city, and died with the cholera. On the 14th December, the Board of Health (N. O.) held a special meeting, in which they announced that the Asiatic Cholera was not in the city.

On the 15th eight cases were admitted into the Charity hospital, and it was reported that cases were occurring in the private practice of several physicians.

On the 16th 11 cases were admitted, and then the disease went on increasing until a panic pervaded the city. The epidemic raged most severely from the 22d to the 30th December, having reached its zenith about the 28th; on which day the deaths by cholera were 96. From the 16th to the 22d the weather was oppressively warm, the thermometer rising as high as 84°. From the 22d it was cool, wet and gloomy, till the night of the 30th when there fell a white frost. On the morning of the 1st January there was another white frost, and from that day the disease declined steadily.

We thus see a striking resemblance between the mode of introduction and the period of duration of the cholera at Quarantine and that of New Orleans, and had the weather been as mild in the former locality as in the latter, instead of its being suddenly arrested on the 1st of January at Qurantine, it would in all probability have underwent, as in New Orleans, a gradual decline. Yet, from the foregoing extract, and from what has been previously narrated, it would seem evident that the cholera was brought into the Marine Hospital by the ship New-York, and into New Orleans by the Swanton. Dr. Fenner, however, thinks that there was a predisposition to the outbreak of this malady prior to the arrival of the Swanton, at least we infer this from the following remarks: "For several weeks previous to the arrival of the Swanton the weather had been changeable, for the most part very warm, though there had been several white frosts. Yellow fever had almost disappeared, and there was but little sickness prevailing; though amongst the existing diseases were observed some remarkable cases of bowel and stomach complaints. On the 5th December I attended a gentleman on Custom House-street, who labored under vomiting, pain and spasm of the bowels to such a degree that, if epidemic cholera had been supposed to be here, no person would have hesitated to pronounce him a case. . . . . Some days previous to this three or four negroes were attacked with cholera morbus on the same night and at the same house in Gravier-street; similar cases were observed in the practice of a number of physicians in different parts of the city, all going to show, as it appears to me, that *the epidemic influence of cholera was gradually being matured and developed in our midst.*" There are other facts presented by Dr. Fenner evincing that the epidemic constitution of the atmosphere at New Orleans, at the time last referred to, was not quite ripe for the cholera harvest; for opportunities of introduction had already been afforded by the arrival of vessels from Germany, prior to the 11th of December, where, at the time of embarkation, the cholera was raging; and notwithstanding many died from this disease on the passage, not a single case was introduced into the city, its atmosphere not being ready for its reception.

Notwithstanding all that has been previously narrated, facts have this day (May 31st) been brought to my knowledge, which seem to settle the question of the contagiousness of cholera.

On the evening of the 29th a little German girl was brought into the lower hospital, Ward No. 1, under the care of Dr. Bruninghausen, with cholera, from the ship John Hancock, just arrived from Havre. On the next morning her mother was also brought in collapsed, and died in the evening. Afterwards two other females, old inmates, were seized with the same disease, and now, in less than two days, four more cases. The little girl was removed to a different room last night, and this morning the young woman in the bed next to her is attacked with this malady. It has not yet invaded the other wards of this hospital, and consequently has not come under my immediate supervision.

The cholera has also made its appearance in different parts of Staten Island, and several have already fallen victims to it. For the last eight days the wind has been from the northeast, attended with a considerable fall of rain, though for the most part the rains have been light, accompanied with much haziness and dense fogs. The weather has also been quite chilly, requiring fires to be kept in the parlors morning and evening, and oftentimes throughout the day. This afternoon (31st May) the wind has shifted towards the south, and the temperature has increased, the thermometer being about 72°. It is very like the kind of weather that existed here when the cholera was at its highest pitch last winter, with the exception of coldness, and I have no doubt we are again immersed in the cholera atmosphere.

During the months of April and May at least 55,000 passengers have arrived at the harbor of New-York from foreign ports, of which number 12 only were brought on shore at Quarantine sick with the cholera.

ART. II.—*Case of Ovarian Disease.* By H. N. BENNETT, M. D. of Bethel, Connecticut.

In the month of May, 1847, F. F. an unmarried lady of 34 years, consulted me with reference to a tumor situated in the inferior portion of the abdomen, and exactly upon the median line. She was of sanguine temperament, having blue eyes, sandy hair, a light skin, the face marked with freckles, slender in her general conformation, and inheriting a scrofulous diathesis. She had had for some years an habitual cough, but without expectoration, and her general health in other respects was so good as to allow her to labor with very little intermission at her occupation, which was that of a finisher of combs. It is very probable this occupation was the exciting cause of the cough to which she was subject, as there is much dust occasioned by the processes employed in it. At the time of my first examination the tumor above mentioned occupied a considerable portion of the lower part of the abdominal cavity, extending from the pubis nearly to the umbilicus, perfectly circumscribed, and globular in its form. It was firm to the feel, and I could not detect the least fluctuation. I should observe that the tumor did not appear to stand out forcibly against the abdominal wall, but seemed rather to be held back towards the spine. Upon inquiry, the patient affirmed that she was perfectly regular in regard to her catamenial discharges, and that her general health was much better than before the appearance of the tumor. Her cough had entirely ceased, but she had been for some time employed in the work-shop. Notwithstanding my patient's declaration that she was "*perfectly regular*," and the fair reputation she had always maintained for chastity, I could not but entertain a slight suspicion of pregnancy, from the situation of the tumor, its firmness, and the period it had been forming, being according to the patient's own account some five or six months—in short, the tumor corresponded very nearly to the size and feel of the uterus at this period of gestation. I deferred giving an opinion, and told her I would call again in a few days, make a further examination, and prescribe for her. In accordance with this promise, I saw her again, and examined the tumor with the stethoscope. I could detect neither the sounds of the fœtal heart, nor the placental *bruit.* I placed my hand upon the bare abdomen, and could feel nothing like a fœtal movement, while I irritated in various ways the abdominal surface as well as the tumor itself. I could still detect no fluctuation. Directing my patient to change her position from one side to the other, I found the tumor constantly maintaining its position upon the median line, with but very little variation. I proposed no vaginal examination at this time, partly because I did not wish to wound the modesty of an unmarried female, and because my suspicions of pregnancy were almost entirely dispelled, not only from the examination I had made, but from my patient's artless deportment with reference to her situation. My diagnosis was ovarian disease, and, although I could yet discover no fluctuation, I suspected it to be of an hydropic character, from its size and the rapidity of its formation. I prescribed at this time diuretics internally, and the Ung. Iod. Pot. to be rubbed freely over the region of the tumor. This method of treatment was pursued for a length of time, without producing any amendment. The tumor continued to increase in size, and the fluctuation became very evident. In the month of August I proposed tapping, the symptoms being urgent. The patient complained of great distress at the epigastrium, frequent vomiting, and inability to retain food upon the stomach. She consented to the operation, which was performed in the usual place for ascites. Twelve pints of fluid were discharged at this time, of a slightly brownish tint, a glutinous feel, and a consistence greater than that of serum. During the 20 months following the first paracentesis I tapped this patient thirty-six times, at continually decreasing intervals, and drawing off an average quantity of two gallons at each operation. The abdomen never returned to its normal size, in consequence of the discharge of this amount of fluid, and the sac was still readily felt through the abdominal walls. Two or three times my trocar slipped from the sac when not more than half the usual quantity had been removed. During the last ten months of her life the patient became œdematous, first in her lower extremities, and afterwards generally. She presented the marks of true cachexia. The fluid drawn from the tumor, contained at times large quantities of pus. There was, however, no return of cough or other symptoms of pulmonary irritation. She died with marked symptoms of meningeal effusion, the result of extreme anemia.

Autopsy 14 hours after death.—Abdomen the only part examined.—I made the section of the abdominal parietes with care, to avoid an incision of the sac. The muscles were much atrophied, and reduced to a mere membranous expansion of muscular fibre. The peritoneum was somewhat thickened, but not to an unusual degree. Upon laying open the peritoneal cavity, a sac was at once displayed of enormous dimensions. There were but few adhesions either to the abdominal walls or the viscera, and not the slightest adhesion to the pelvic contents. The intestines were crowded high up in the hypochondriac and epigastric regions, the tumor occupying all that portion of the cavity of the abdomen, covered only by muscular parietes. I removed the sac entire, together with the uterus and its appendages. The tumor was formed from the left ovary, the fallopian tube being perfect. Nothing could exceed the beauty of the vascular arborizations upon the surface of the sac. The tortuosities and ramifications of the venous trunks were displayed in a thousand different ways, and presented every imaginable variety of plexus. Over the whole exterior of the tumor, were also seen numerous small circular vesicles or cysts, of a bird's-eye appearance, scarcely projecting upon the surface. I punctured the cyst at the point where I had formerly introduced the trocar, and after having discharged about 12 pints of fluid, I laid it open. It was a true multilocular cyst, only one of the compartments of which had ever been punctured, but fortunately this one comprised three-fourths of the whole tumor. The largest of the lesser loculi did not contain to exceed six ounces of fluid. The inner face of the principal cavity had evidently been the seat of extensive tubercular deposition, two or three large masses of which remained yet unsoftened. These masses were of the size of a very large filbert, projecting inward, perhaps having been formerly enclosed in a separate cyst. Some of the lesser loculi also contained tubercular masses. The size of the smaller compartments of the tumor varied from that capable of containing six fluid ounces, to those no larger than a small shot, the lesser uniformly projecting upon the inner face of the greater. I should add, that the largest loculi were partially subdivided by bands of a pseudo-membranous appearance, forming incomplete partitions. The character of the fluid contained was almost as various as the size of the cysts. The larger were generally filled with a thick gelatinous fluid, somewhat tenacious, and of a dark brown or chocolate color. Some of the smaller were almost entirely filled with a tubercular mass, a slight layer of serum being interposed between the unattached portion of the cyst and the deposit. Others again were distended by a transparent fluid resembling very pure albumen. The minute cysts were innumerable. Many of these were to be seen through the outer fibrous envelope, which I formerly designated as presenting the bird's-eye appearance.

The right ovary was of normal size, but pale, and evidently containing one or two small masses of tubercle. Upon the superior face of the fundus uteri was a pediculated fibrous tumor, ovate in form, and about one and a half inches in its longest diameter. Near by, on the anterior face, was another of very small dimensions, not exceeding a buck-shot in size. The uterus was otherwise healthy in appearance.

Remarks.—This case so forcibly illustrates a point of diagnosis, that I cannot but refer to it. Authors generally assert that ovarian tumors are developed in the iliac lateral regions of the abdomen, and that they only reach the median line after acquiring large dimensions. This view is declared by Cruveilhier to be purely theoretical, and he observes, that "the ovarian cyst is placed at once upon the median line, for the reason that it is developed in the direction which offers the least resistance." (5 Livraison, Pl. 5. p. 3.) The truth of this observation is easily illustrated. The ovaries occupy a position nearly upon the plane of the abdominal strait, and supposing the cyst to be developed in all directions, its lateral development towards the ilium and pubis, must at once crowd the body of the tumor upon the median line;—as it increases in size, it is thrown above the superior strait, dragging the fallopian tube with it, and, at length, even the body of the uterus. The celebrated pathologist above quoted, remarks, in reference to this latter fact, that "in encysted hydropsy of of the ovary, the uterus is not crowded downwards, as is generally said; on the contrary, it is drawn upwards, so that it is impossible to reach it." The above assertions, however, require certain qualifications. If the ovary, in its first departure from the healthy state, contracts pelvic adhesions, it is readily seen that it cannot assume a position upon the median line; but that it must be held towards the iliac region and lateral part of the abdomen. This was the fact in a case of ovarian disease which I reported in this Journal a few years since. Hence originates to my mind a practical inference. If the tumor occupies the median line, the presumption is in favor of no adhesions to the pelvis, and the probability of the success of an operation for its removal is much increased. If, on the contrary, the tumor remains in the iliac region, it is strong evidence of adhesions, and is an objection to an attempt at ovariotomy. The tumor, in the present case, could have been removed with the greatest ease, and presented no obstacles to a successful exsection.

There is one other point worthy of observation in the present case. Although a multilocular cyst, the puncture was successful, from the fact that the principal loculus presented itself against the abdominal wall, and formed a large portion (three-fourths) of the tumor. Notwithstanding, had the trocar been introduced two inches higher up, it would have entered one of the lesser loculi, and the operation would have failed.

Art. III.—*Post-Pharyngeal Abscess.* By J. Henry Clark, M. D.

Newark, New Jersey.

The following case of disease is interesting on account of its great rarity and the extreme difficulty of diagnosis which characterized its whole course.

Rev. Thomas Cochrane, late of this city, aged 49 years, of phlegmatic temperament, and of plethoric habit, who had enjoyed hitherto good health, was seized on Sabbath evening, December 24th, 1848, with a very violent inflammation of the throat. He had preached during the day with considerable difficulty, but he had no previous intimation of the attack except the impression that for some months he had articulated with less ease, and had occasionally a sensation as of choking.

On the afternoon of December 28th I was summoned hastily to his house. He had just reached home from a neighboring village several miles distant, having travelled for some hours, during which time he was more or less exposed to a severe snow-storm. I did not learn that any treatment had been resorted to in the interim except the application of a blister. Found my patient pillowed in a rocking chair thrown far back, his head thrown back upon his shoulders, his mouth extended breathing with extreme difficulty. He had not swallowed any thing for about forty hours, (the difficulty of swallowing increased and greatly exceeded that of breathing.) The parotid and submaxilary glands were not considerably enlarged, nor were the tonsils very much inflamed. The obstruction appeared to be situated low in the pharynx and the aperture, blocked with mucous, through which the air forced its way, was scarcely larger than the handle of a cataract needle. The voice was entirely lost, the patient could not whisper so as to be understood without much difficulty. Pulse 130, full and forcible; skin somewhat hot, countenance sallow, expression wearing and anxious. He was ordered six leeches to the larynx, and I watched the effect, prepared to introduce a hollow bougie if necessary for the relief of the threatened suffocation. Considerable relief was procured.

Dec. 29th, relief obtained by the leeches continued, but no further improvement was manifest. Pulse still 130, with considerable heat of the surface. Touched the pharynx with a solution of nitrate of silver, 30 grains to the ounce of water, with some evidence of temporary advantage.

Dec. 30th, there was evident improvement; the patient was able to swallow a dose of sulphate of magnesia, though with great difficulty. At this stage of the disease a consultation was requested, and Dr. Samuel H. Pennington was called in.

Dec. 31st, met Dr. Pennington in consultation. Found more difficulty in swallowing than we could find a cause for in the condition of the organs of the throat. It was still extremely difficult to administer remedies by the stomach; ordered a blister on each side of the larynx.

From Jan. 1st, to the 4th, 1849, there was some amendment each day. The pulse became less frequent, also the difficulty of swallowing became less.

Jan. 10th, ceased to consider him under treatment, and believed that a nutricious diet and good nursing would soon restore him to sound health. Having occasion to see another member of the family, during the period of three weeks apparent convalescence, my attention was occasionally called to him. I found him always complaining of some difficulty of deglutition, the obstruction seeming to be situated below the pharynx. He could not *swallow a small draught*, but by taking a very large one he was able to pass the fluid behind the obstruction. These unpleasant symptoms appeared, however, to be less and less troublesome, although his pulse did not fall below 120 at any time.

Jan. 30th. I was hastily summoned on account of a return of the extreme difficulty of swallowing. On giving the case a most careful examination I could see no cause for the extreme difficulty of swallowing, which rendered it impossible to pass solids into the stomach. The pharynx was pale, and the glands of the throat presented a natural abnormal appearance; still the pulse was frequent and irritable, (its frequency having considerably increased within twenty-four hours,) and there was evidence of perpetual pressure upon the pharynx. Dr. Pennington, at my request was again called in in consultation. We ordered the application of two leeches near the point of pressure below the pharynx, where we were informed by the patient there had been some sense of tension from the earliest period of the attack, and indeed he believed that occasionally he had experienced an unpleasant sensation at that point for a year past, when in the act of swallowing.

Jan. 31st. There was little change.

Feb. 1st. The patient swallowed more easily, but the pulse was no less frequent.

Feb. 2d. Ordered sulph. quinine gr. iss. every four hours, at the same time using means to control local inflammation; also continued the application of nitrate of silver in solution to the fauces.

Feb. 3rd. Pulse 140—profuse sweating of the head occurred—patient wished to have *the head* supported whenever he was raised up—still he complained of no pain in the back of the neck—emaciating very rapidly.

Feb. 6th. Our attention was called to a small tumor situated in front of the larynx, which extended a short distance along the course of the "sterno-cleido-mastoïdeus" of the right side. The diagnosis of the tumor was very difficult. Observing the relief afforded in deglutation, our previous impression that an abscess, somewhere, by the pressure of its contents upon the pharynx, was the cause of difficulty, was in a measure confirmed.

Feb. 7th. Tumor had increased.

Feb. 10th. The increase from the last date was considerable. The character of the tumor was still very obscure, having an emphysematous feel. We still believe that it contained pus, and ordered poultices to be continued. (These were ordered on the first appearance of the tumor.)

Feb. 11th. Perceived indistinct fluctuation, and were now almost confident of finding pus. Made a deep exploration at the most dependant portion of the tumor at the point where it passed under the right sterno-cleido-mastoïdeus: no pus following the puncture we were now led to suspect the possibility of the tumor being, in some way, associated with an abnormal condition of the thyroid gland—its lobulated appearance favoring such a conclusion. With this idea in view, we made trial, for a few days, of a local application of ung. hydrio. potassæ, and gave internally, Lugol's Solution of iodine, ten drops, three times a day.

Feb. 12th. A very troublesome cough now manifested itself—very little cough had heretofore been observed.

Feb. 13th. Examined the chest—observed slight dullness on percussion. The ear discovered slight mucous rhoncus and partial absence of the respiratory murmur. The history of the case was not such as to lead us to suspect tubercular disease of the lungs, and except the emaciation and recent cough, there were no rational signs present.

Feb. 15th. No very marked change—the stethescope was again resorted to, but no further physical signs of tubercle could be detected. The tumor became softer, and there were more evident signs of fluctuation. Another exploratory puncture was decided upon—but concluded to delay until a consultation, which was now contemplated with Professor W. Parker, of New-York, could take place.

Feb. 19th. Dr. Parker met us in consultation. The feebleness and emaciation of the patient had now become very considerable. After a close examination, Dr. Parker made an exploratory opening directly in front of the larynx—inclining to the belief that the tumor probably contained pus, this fluid directly made its appearance. The opening being enlarged, a large quantity of illaudable pus of a pea-green color escaped. It was now pronounced to be a case of post-pharyngeal abscess, as the result has since proved.

Stimulents and an animal diet were freely used from this period to sustain the sinking powers. The pulse became more rapid and feeble, and the remaining strength was from this period rapidly exhausted. All difficulty of swallowing, which was, it will be remembered, the earliest symptom, was removed by the operation.

Feb. 22d. A slight pleuritic attack, required a blister, and a temporary suspension of the stimulant remedies for twelve or eighteen hours.

Feb. 23rd. Stimulants were again freely used, the pleuratic pain being relieved. The expectoration became very fœtid. The pulse was more feeble.

Feb. 24th. The morning brought with it a great change in our patient for the worse. Stimulants were more freely employed, and he was sustained till midnight, when he expired by asthenia, retaining the entire possession of his reason up to the last moment of his existence.

Autopsy made sixty hours after death. Present Drs. Pennington, Coles, Dougherty, and King, with myself. Body greatly emaciated. Threw a solution of ammonio sulphate of copper into the place of incision in the neck, which readily caused the tumor to assume its previous size and shape, extending from the mastoïd process down along the course of the sterno-cleido-mastoïd muscle of the right side, to the situation of the thyroid gland, which it fully occupied, giving it the appearance of goitre.

On opening the sinus it was found to be situated beneath the platisma myoides and the deep fasia of the neck. It presented a smooth glistening surface, following up the course of the muscle, the sinus was found to communicate with an enormous cavity bounded posterially by the almost denuded bodies of the cervical vertical. The pus had nearly made its way into the cavity of the chest on the left side, exposing the patient to instant death by suffocation.

The lungs were found considerably tuberculous, and in many points small abscesses had formed. There was but little effusion into the cavity of the pleuræ. The heart was healthy. Believing that we had reached the cause of death, in the condition of the neck and chest, we extended our examination no further.

While the result of this case should not lead us to value less the physical signs of diseases of the chest, it surely teaches the great importance of not relying wholly upon the stethescope in making our diagnosis. It is an interesting point of inquiry at what period the accumulation of pus commenced, and whether it was the cause or consequence of the disease discovered in the lungs?

The post-mortem examination explains the cause of the partial sweats, the difficulty of swallowing, the inability to sustain the head, and many other symptoms which before no explanation could solve.

Remarks.—We agree with the writer that the foregoing is an exceedingly interesting case. To the pathologist as well as surgeon, it offers material for reflection. That the "small abscesses" found in the lungs on the post-mortem examination were the result of purulent absortion there can scarcely be a doubt. As such, then, they were the consequence of the previous disease, (post-pharyngeal abscess.) If we remember that the symptoms which supervened on and after the 12th of February were such as frequently accompany the commencement of purulent infection; and that the "slight pleuritic attack" on the 22d was but the more full manifestation of the consummation of such a state, we are led to believe that these abscesses were metastatic in their character, and clearly the result of purulent absorption. The rapidity with which such changes take place should lead us to institute repeated and careful examinations of the chest for the detection of the same, although the department of therapia may not be in a marked manner advanced by such knowledge.

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Art. IV.—*Case of Secondary Hemorrhage after Amputation at the Shoulder Joint.* By Charles S. Tripler, M. D. Surgeon, U. S. Army.

In the 8th volume, page 152, of the Republication of the London Lancet, a case of amputation of the shoulder joint, proving fatal, from secondary hemorrhage, is reported at length. The operation was rendered necessary in consequence of frightful laceration of the limb, from its being engaged in the rollers of a powerful machine. On the tenth day hemorrhage occurred from the axillary artery. It was met by ligature above the spot where the artery had given way. The next morning at 5 the hæmorrhage returned. "The artery was now carefully examined, and as it appeared to be *perfectly healthy*, another ligature was put on about half an inch higher up, and all hemorrhage thus checked." At 1 P. M. same day, from mental excitement, hemorrhage suddenly took place again. Mr. Simon cut down quickly and skilfully upon the subclavian artery, and placed a ligature upon it; but the patient was pulseless when this was done, and he died in a few minutes."

In the progress of this case, slight sloughing of the skin had occurred, but it was arrested by appropriate treatment. There was a deficiency of integument for covering the wound, from the nature of the injury, and on the seventh day the artery was seen pulsating upon the surface of the wound. This case occurred in the practice of Mr. Fergusson, a surgeon of deservedly high repute, and must have been judiciously managed. It is with great diffidence, therefore, that I venture to offer a few reflections which the perusal of it has suggested to my mind. There were three distinct bleedings, occurring from a vessel to which a ligature had already been applied, and each repetition of the hemorrhage was met by a repetition of the ligature. Is this the best means of meeting the emergency in this particular amputation? What reason is there for supposing the ligature will be more effectual in the second or third instance than in the first?

A private of the 2d regiment U. S. Infantry received a gun-shot wound on the 20th August, 1847, at the battle of Cherubusco, Mexico, shattering the humerus so high up as to render amputation at the shoulder joint necessary. This operation I performed on the morning of the 21st, by the method recommended by Velpeau in his Surgical Anatomy—a method I can recommend where the state of the parts will admit of it, as expeditious, neat, and leaving the mutilated surface as little unsightly as possible.

In the course of the afternoon of the 21st our wounded were removed from the field hospital, at Cherubusco, to the village of St. Angel, where they were made as comfortable as circumstances would permit. Here they remained during the armistice that followed the battles of Contreras and Cherubusco—about sixteen days.

The wound under consideration progressed admirably. In the course of a week the man was moving about the hospital, and began to take a walk daily to his company quarters, to visit his comrades and relieve the ennui of his confinement. In the night of the 4th September a frightful hemorrhage suddenly burst forth from his wound. The noise of the rush of the blood was sufficient to rouse some of his fellow sufferers in the same ward, and one of them placed his hand upon the wound so as to control the hemorrhage till surgical aid could be had. An assistant on duty in the hospital, was soon at his side, and applied a suitable compress, secured by a roller, which effectually arrested the bleeding. Upon my arrival at the hospital I decided to trust for the present to the compress, in preference to re-opening a wound more than half united, or to subjecting the man to the severe operation of securing the vessel above the clavicle, if it could be avoided.

On the 6th the case was going on well, and the man recovering from the pallor and exhaustion that followed the bleeding. At this time, the duplicity of the enemy being too palpable to be longer permitted, the General in Chief decided to terminate the armistice and resume hostilities at once. It then became necessary to concentrate the military hospitals at one point, and I was sent to Mixcoac at the designated depôt, to make provision for the hospitals of General Twiggs' divison. This was on the 7th of September. Towards night, after I had received nearly all our wounded at the new depôt, I heard that my patient had had a return of his hemorrhage, and hastened back to St. Angel, a distance of four or five miles, when I found him pale and exhausted, and deluged with blood. Upon inquiry, I found that in attempting to move him, the compress became loosened, and of necessity the hemorrhage had returned. It being now quite dark, and lights not being very abundant in our transition state, I was obliged to defer the attempt to secure the artery above the clavicle till morning. I, therefore, carefully prepared a compress of four or five doublings of lint, and about four inches square, secured it by a roller, so that it *could not* slip, placed two men to watch the patient, and left him, fully determined to take up the vessel at break of day. A night's reflection, however, altogether changed my purpose. I considered the fact, that there was full three inches of the artery below the clavicle, that the ribs and intercostal muscles afforded a firm plane upon which pressure might be kept up indefinitely, that aneurism had been cured by pressure in the course of vessels much less favorably situated, that in this case, pressure had been effectual while it had been kept up; and that, if carefully watched, it must be successful. I determined, therefore, to persevere with it. Accordingly, in the morning, I examined the bandages carefully, placed the man on a litter carried by men, sent him to Mixcoac, and committed him to the charge of the late Dr. Luter, (O quam flebilis ille,) with strict injunctions to look to him closely, and to lose no time in securing the vessel in case of further trouble.

From this time, (8th September,) till after the capture of the city of Mexico, I had no opportunity of visiting the hospitals, the army being constantly engaged in active operations against the enemy. On the 16th our hospitals were finally removed into the capital, and I was delighted to find that no further hemorrhage had occurred to annoy my unfortunate patient. From this time he was under my immediate care: no untoward accident supervened; and, on the 31st October the man was discharged the service, upon pension certificate, with the wound perfectly cured, and the general health entirely re-established.

It is difficult to say whether pressure could have been used in such a case as Mr. Fergusson's. There had been slight sloughing of the skin, but this had been stopped. Then the integuments were so scanty that a large granulating surface must have been presented, calling for frequent renewal of the dressings. But the discharge was perfectly healthy, and the hemorrhage might have been controlled by the finger while the dressings were being renewed. The flat surface of the chest affords so favorable an opportunity for pressure, and the compress may be extended over so large a surface, that there seems to be little danger of either pain, irritation, or a recurrence of the sloughing, being produced by it. In most cases, it is certainly preferable to the ligature, and in all may be tried, thus deferring, as long as possible, a second capital operation, (a point of great importance,) even if it should prove unsuccessful.

I am disposed to think that the force of the pulse, in so large a vessel and so near the heart, in some cases displaces the ligature before the clot is fully formed; in others, it renders the ligature a source of irritation, exciting ulcerative inflammation at the point of application, and softening of the coats of the artery in its vicinity, before the adhesion of the inner coat is perfected, and that the hemorrhage is due to some one or more of these causes. In my case, the ligature upon the vessel was firm, and did not come away for six weeks after the recurrence of the hemorrhage. There was, no doubt, an opening in the side of the vessel above the ligature, and it must have been a large one. But, whatever may be the immediate cause of the hemorrhage, it seems to me there can be but little use in applying a second ligature any where near the position of a former one, as the probabilities are, a like result will follow a like cause, and this in proportion to the size of the vessel and its proximity to the heart.

I might adduce numerous instances in favor of this view, but they will readily suggest themselves to the reader.

In similar cases, I would therefore respectfully suggest the trial of pressure over a large surface, in the course of the vessel, before the second formidable operation is decided upon.

ART. V.—*Chloroform in Natural Labor.* By R. P. STEVENS, M. D. of Ceres, Pennsylvania.

Case 1.—Mrs. B. aetat 20, primipara.—She had been in labor twelve hours when I was called. By examination the os was found to be dilated to the size of a Spanish two shilling piece. It had a firm fleshy feeling, and was not easily dilated. Pains were regular but very forcing. Patient of a nervous temperament, fleshy, rosy cheeks, and in high health. In four hours the os had become sufficiently dilated for the head to be distinctly felt and exploration had. The sutures were closed, and fortanelles bony. Head was large. Pains now became very forcing, attended with great effort in bearing down. At the end of six hours from my arrival the os was sufficiently dilated for the head to pass. Great efforts made for expelling the fetus, attended with excruciating pains, and the patient piercing our ears and hearts with her cry of agony. Pulse 120, sharp and spiteful. Little progress made in breaking up the head, and passing the superior strait. At this stage I administered 15 drops of chloroform upon a folded napkin. In the midst of one of her most agonizing cries, while all the attendants were bathed in tears of sympathy she sank back upon her back, in a sound sweet sleep, from which, after a few minutes she awoke exclaiming "this is bliss, this is bliss." Pulse fell from 120 to 75 or 80 beats in the minute, and was soft and easily compressed.

The administration of 10 drops of chloroform every half hour kept her in the anæsthetic state, perfectly unconscious of pain or suffering three hours, until the head was broken down and had passed the superior strait and was engaged in the inferior. Voluntary effort being suspended by the action of the chloroform, I ceased administering in full and regular doses. It was only when she was exhausted by her efforts, (which were deemed necessary) that the chloroform was given in full doses, she would then enjoy a brief season of repose, the pains still progressing but unfelt, and awoke to consciousness with renewed strength and courage for her maternal task. Seven hours she was under the influence of this anæsthetic agent, with the most happy effect. The pulse never rose above 80 after the first dose. Her recovery was rapid, and without any drawback, much more rapid than I ever had seen before, after so severe and protracted labor.

The husband hastened to make the amende d'or.

Case 3.—Mrs. W., ætat 19, primipara. Had been in lalabor 24 hours, a midwife being in attendance. Her cries were heard by me before reaching the house, the distance of half a mile.

On examination the left ear was found presenting the head lying across the superior strait. The patient was making great efforts, and her cries loud and piercing, her eye balls seeming to start from their sockets, and the veins of the forehead and temples swelling as if about to burst.

After putting the head in a favorable position I listened to her pressing cries for chloroform, I gave her 30 drops upon a folded napkin, which in the midst of one of her most distressing pains put her into a quiet sleep, which lasted 15 minutes. On awaking she said she had had the first rest in three days, enjoyed the most pleasing dreams.

10 to 15 drops were administered at intervals of 20 minutes or half an hour, just enough to keep her sufficiently under its influence to make her pains endurable and not suspend voluntary efforts, until the last few expulsive pains, when she was put under its full influence, and she gave birth to a large fine boy, weighing 9 lbs. undressed, wholly unconscious of suffering. She expressed herself as if having been engaged in a great effort. Her recovery was as rapid as Case first.

Case 3.—Mrs. ——, ætat 40, sixth child. Her pains were not regular, frequently shifting, sometimes to the head, more frequently to the stomach, and occasionally between the shoulders. I deferred the use of chloroform until the os should become fully dilated, and the pains more regular. When this had taken place her labor pangs became "*unbearable, I would kill her,*" she said; she begged for chloroform. I exhibited 10 drops which quieted her immediately. With frequent repetitions of 5 drops, she was kept in a perfect anæsthetic state until the child was born, being entirely unconscious when it passed the external orifice. Her pulse sank from 100 to 45, under the influence of the chloroform, and continued at this low point until a half hour from the birth of her babe; it then rose slowly to her healthy standard. I remark here, that, in the complete anæsthetic stage, she was capable at each pain of voluntary effort. Her recovery was more rapid and favorable than any of her previous confinements. She had no after pains, though previously suffering severely from them, fully equal, she said, to her true labor pains. She expressed much gratitude to me for the use of a remedy which made the hours of meternity endurable, and this anticipation pleasant.

Case 4.—Mrs. S——, ætat 22, primipara. Premature labor at the 8th month. Breech presentation and delivery. Had been in labor 18 hours, when the os was fully dilated, but the vagina, perineum and vulva still rigid. In fact, had not begun to dilate, but was constricted, hot and dry. Pulse 120, sharp and irritable. Pains severe, forcing, occurring every ten minutes, and attended with great efforts of expulsion. Her mind was anxious for her own safety, and that of the child, and despairing of all hope. In previous cases of the like symptoms I bled ad deliquium animi. In this I resolved to try the chloroform; and, though the patient was much opposed, I exhibited 10 drops, with the happy effect of quieting all her cries, inducing sweet and refreshing sleep, and giving hope and courage. Pulse sunk to 60, and was full and soft. For three hours she was kept under the gentle influence of chloroform, giving tokens of pain only by a slight movement of the corrugator muscles of the forehead. During all this time she was conscious of what was doing in her room, of the movements of all around her, could answer questions, and wished I would put her into a perfect sleep. Cloths wrung out of hot water were kept continually upon the soft parts. At the expiration of three hours the soft parts being sufficiently dilated, the dose of chloroform was reduced, sufficiently for her to use voluntary effort, (for it had interrupted all power of aiding,) and in 40 minutes she was safely delivered of a living child, quite to my surprise, having been so long in labor, with this presentation.

She expressed herself as having had the most delightful dreams, the particulars of which she could have recollected, if I had given her enough. Her recovery was rapid, and unattended with any unpleasant symptom.

I remark here, that I was as much surprised at the charming power of this agent, as I have ever been when following the advice of the late Prof. Dewee's, I have bled to fainting, and seen the most unpromising cases yield to this heroic remedy. The sequelæ of the one, however, is far different from the other. After the latter, we often have to contend with all the protean symptoms of impoverished blood, while in the former, fresh air rapidly renewed the vitiated blood, and in a few hours at the farthest, no trace of the potent agency we have been using can be found.

Case 5.—Mrs. L——, ætat 24, second child, premature labor at the 7th month. Breech delivery, child stillborn, appeared to have been dead some days. The history of this case is so nearly that of No. 4, that that will suffice for this.

ART. VI.—*Report on the practical operation of the Law, relating to the Importation of Adulterated and Spurious Drugs, Medicines, &c.* By M. J. BAILEY, M. D. Special Examiner of that class of merchandise in the United States Customs at the Port of New-York.—(Read before the New-York Academy of Medicine, June 6th, 1849.

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UNITED STATES CUSTOMS.

New-York, April 21, 1849.

To VALENTINE MOTT, M. D.
President of the New-York Academy of Medicine.

SIR—On the passage of the bill prohibiting the importation of spurious and adulterated drugs, medicines, medicinal preparations, &c. I was requested by the Hon. Thomas O. Edwards, the able and philanthropic chairman of the special committee of the House, to which that important subject had been referred, to note the practical working of the law at the port of New-York, (where three-fourths or more of the importations of that class of merchandise are presented for entry,) and furnish, in such manner as might be most agreeable to myself, a report of the same, prior to the next meeting of the National Medical Association, in order that the information therein contained might have the greatest possible circulation throughout the country.

I cheerfully acceded to his request, and have consequently, for some time past, improved the limited leisure moments allowed me, apart from my official duties, in preparing this communication, which I most respectfully submit to the consideration of the New-York Academy of Medicine. It is made up of facts, and such views in connexion, as have thus far suggested themselves to me, and should the subject matter be deemed worthy of more extended notoriety, it willl be exceedingly gratifying to me, should the distinguished body over which you preside, be the medium of communication, not only to the Medical Profession, but in any other way best calculated to aid in advancing the praiseworthy, humane, and philanthropic object for which the law in question was so promptly entertained, and unanimously passed by Congress.

I feel the more pleasure, dear Sir, in laying this report before the Academy of Medicine, for the reason that it sets forth to some extent the beneficial effects resulting from the united and efficient efforts of its members—the *pioneers of the profession*, in bringing about this most important and long needed reform.

While too much praise cannot be awarded to the New-York College of Pharmacy for the long continued watchfulness and fearless zeal manifested in the detection and exposure of frauds in the preparation of medicines, and for taking the initiatory steps in memorializing Congress, &c. it is well known that the Academy of Medicine came promptly and opportunely forward, and essentially aided in setting the ball in motion; and the example being followed by the profession generally, as well as by that important and powerful phalanx, the National Medical Association, convened at the time, at Baltimore, an influence was thereby brought to bear, which proved irresistible, and without which, the reform, however desirable, could not have been consummated.

The law took effect at this port on the 12th of July, 1848; and the following is a list of the more prominent articles of drugs and medicines, with the quantities and place whence imported annexed, which I have, during the months named, rejected under its provisions: to wit—

July, 1848,	7,581 lbs.	Rhubarb root,	from Canton.
August,	750 lbs.	Opium,	do. Marseilles.
do.	2,940 lbs.	Jalap root,	do. Tampico.
do.	2,249 lbs.	Rhubarb root,	do. London.
September,	646 lbs.	do. do.	do. do.
do.	1,414 lbs.	Gamboge,	do. do.
do.	545 lbs.	Rhubarb,	do. Hamburg.
do.	1,400 lbs.	Senna,	do. Leghorn.
do.	2,900 lbs.	Spurious Yellow Bark,	do. Bordeaux.

September,	875 lbs.	Rhubarb,	from	Canton.
do.	758 lbs.	Opium,	do.	London.
do.	1,783 oz.	Iodine,	do.	do.
do.	1,075 lbs.	Rhubarb,	do.	Marseilles.
do.	4,275 lbs.	Jalap,	do.	Vera Cruz.
October,	788 lbs.	Rhubarb,	do.	London.
do.	227 lbs.	Myrrh,	do.	do.
do.	13,120 lbs.	Spurious Yellow Bark,	do.	Maracaibo.
do.	1,875 lbs.	do. do. do.	do.	Bordeaux.
November,	412 lbs.	Myrrh,	do.	London.
do.	1,280 oz.	Iodine,	do.	Glasgow.
do.	860 lbs.	Opium,	do.	Smyrna.
do.	185 lbs.	Rhubarb,	do.	London.
December,	156 lbs.	Opium,	do.	do.
do.	1,065 lbs.	Myrrh,	do.	do.
do.	12,800 lbs.	Spurious Yellow Bark,	do.	Santa Martha.
do.	392 lbs.	Jalap,	do.	Vera Cruz.
January, 1849,	1,300 lbs.	Pectoral Paste,	do.	San Juan.
do.	2,071 lbs.	Rhubarb,	do.	London.
do.	3,550 lbs.	Jalap,	do.	Havana.
do.	1,930 lbs.	Spurious Bark,	do.	Antwerp.
February,	974 lbs.	Rhubarb,	do.	London.
do.	1,992 oz.	Iodine,	do.	do.
March,	1,104 oz.	Croton Oil,	do.	do.
do.	4,894 lbs.	Senna,	do.	do.
do.	1,345 lbs.	Spurious Bark,	do.	do.
do.	404 lbs.	Opium,	do.	do.
do.	1,150 lbs.	Valerian root,	do.	Paris.
April,	425 lbs.	Opium,	do.	London.
do.	1,273 lbs.	Myrrh,	do.	do.
do.	550 lbs.	Jalap,	do.	Vera Cruz.
do.	816 lbs.	do.	do.	Tampico.
do.	1,450 lbs.	Sarsaparilla,	do.	do.
do.	600 lbs.	Spurious Bark,	do.	Barranquilla.

Together with smaller quantities of various articles which have been rejected from time to time, but which it is not necessary to enurate here—making the entire amount, some 90,000 lbs. of various drugs, &c. which have, up to the present time, been refused.

Such, Sir, are the fruits, thus far, at this port, of the wise and eminently beneficial sanatory measures, so heartily approved of by every friend of humanity;—that measure, too, which met from its inception, the open, determined and unremitting hostility of a God-forsaken portion of our trading community. From the moment the question was first agitated, and during the progress of the bill through Congress, intense excitement and ill feeling was manifested among certain importers and speculators who had long made the murderous traffic not only a source of profit but of wealth, and no means were left untried by them calculated to defeat the measure.

Even the public press was brought into requisition, and, as I am credibly informed, in some instances *paid* for opening upon the community, at stated intervals, an editorial broadside of vindictive denunciations under the flimsy and unwarranted guise of the law being opposed to free trade—" intentionally protective to our own manufacturing chemists," &c. and finally, closing with the very astute reasoning to the effect that such a law was entirely unnecessary, for the reason that every one could either discriminate for himself in the purchase of medicine, or go to stores in which he had perfect confidence!! The editor forgetting, in the vague cogitations of his sanctum, that the city of New-York, (furnishing, as we admit it does, apothecary establishments worthy of all confidence,) does not comprise the whole of our wide and almost limitless country;—forgetting too, that with the exception of our larger towns and villages, medicines are every where purchased and sold by merchants dealing at the same time in every other description of merchandise, and who do not even profess to have any practical knowledge of the drug trade as a separate pursuit; hence, as long as the principal markets are filled with spurious articles, the unsuspecting country merchant is liable to be imposed upon by the unprincipled dealers from whom he may perchance unwittingly obtain his supplies; and his customers at home must suffer in consequence, more or less, according to the extent of the deceptions practised upon him by the city speculator; as they have no other alternative, but to use such medicine as they find within their reach,—being, as they are, too far removed from any considerable town, to enjoy the privilege of " discriminating," or even a choice of stores to select from.

Many of my professional brethren, I opine, whose fortune it is, or has been, to practice in the country, can, from sad experience, bear witness to the truthfulness of these remarks. The power of discriminating, as far as *prepared* medicines are concerned, is indeed a rare virtue, and possessed by very few; and those who assert that any one can discriminate for himself in the purchase of medicine, betray a depth of ignorance of the mysteries of the laboratory, (to say nothing of its *trickery*, when in skilful, but unprincipled hands,) not very commendable in a public journalist who would presume to speak understandingly of subjects requiring not only extensive scientific research, but practical knowledge.

Most persons, we admit, can judge very correctly by sight of the quality of most articles of food and clothing; but where is the man who can, by simply looking at the almost countless number of medicinal preparations, chemical and otherwise, say whether they are pure or adulterated? can, by looking at the various preparations of morphine, say whether they do, or do not contain five, ten, or even twenty per cent. of *amygdaline?*—Can detect by sight, *corrosive sublimate, prepared chalk, gypsum,* and other impurities in calomel?—Can by sight, say whether blue-pill mass contains its full equivalent of mercury, or only one-fourth or less of the requisite quantity?—Can say whether hydriodate or iodide of potash is pure, or is adulterated by the admixture of *sal acetosella, sup. tartrate,* and *sulphate of potash?*—Can, in the same way, detect *salicine, mannite, sulphate of barytes,* and *oxyde of zinc* in sulphate of quinine?—can say whether tartarized antimony, and antimonial powder is pure, or whether they contain ten, twenty, or thirty per cent. of *rye-flour?*—Can say whether croton oil is, or is not adulterated by the admixture of inert *fat oils,* or whether it is not, in fact, an entirely *factitious article?*—Can, by looking at the powdered cinchona bark, say whether it is genuine powder of that species which affords the largest quantity of quinine and some cinchonine, or whether it contains thirty or fifty per cent. of the powdered *Maracaibo* or *Carthagena bark,* which affords but a trace of either of these important alkaloids, and is consequently worse than worthless for medicinal purposes—or whether it is not, in fact, composed entirely of the latter worthless variety?—Can say by looking at powdered rhubarb, whether it is that prime quality which affords from sixty to seventy per cent. of soluble matter, and some twelve per cent. of pure resin, or whether it is an article produced from the *decayed and worthless* root, (the color and smell having been heightened by artificial means,) which affords not to exceed fifteen per cent. of soluble matter and *no resin at all?*—Can by the sight detect *flour, starch, extract of senna, carbonaceous* and *argillaceous* earths in scammony, or can pronounce it pure?—Can say by looking at powdered jalap whether it is fresh and pure, or whether it contains ten, fifteen, twenty or more per cent. of *powdered gray sago* or other *farinaceous* substances?—Can by looking at the extract of Peruvian bark, say of what species and quality it is composed, or whether it is not adulterated with inert extractive matter?—Can tell genuine compound extract of colocynth, from a partially, or an entirely factitious article?—And thus I might continue through the whole catalogue; for these adulterations have been made, and will continue to be made, unless *unremitting watchfulness* is exercised by the *profession*, and all *regular dealers;* but I feel that I have already sufficiently exposed the fallacy of the *ocular* "discriminating" test. Suffice it to say, that the special pleading of interested parties proved a nullity, and the righteous and humane law triumphed; for, notwithstanding the threats of *repeal*, the threats of vengeance upon the devoted head of the writer of this communication, for having furnished Congress with the requisite facts and data, on which to warrant and frame a favorable report, and the countless anathemas uttered against the active friends of the measure generally by those who on the passage of the law, doubtless, and very properly so, considered their "occupation gone,"—I have reason to believe that many, very many of the then opponents have already become convinced of their error, and have resolved hereafter to pursue a different course of trade, and in the matter of *false representations*—to sin no more.

With some few exceptions, and those of foreign houses who, from the first have refused to be comforted, the murmurings of discontent seem at present to have almost entirely ceased, while the friends of the measure have greatly, and as far as I can learn, every where increased; and what is particularly gratifying is the fact, that several of our honest and worthy importers and dealers, whose views of free trade recognize no medium ground, and who, when the subject was first agitated, fancying they discovered in its objects some air-drawn dagger aimed at commercial rights, stood neutral, looking upon the passage of such a law as of doubtful propriety, (although they, at the same time, deprecated the base traffic,) have already confessed that their fears were groundless, and that they are now satisfied the law, instead of being calculated to embarrass and cripple trade, will essentially benefit it; perceiving as they do, that a better and higher standard of articles are called for, and a corresponding higher price paid by the purchaser without complaint; which fact, of itself, furnishes ample inducement for them to order none but genuine, and the first quality of drugs and medicines from abroad.

As an instance in point, and to show how the good seed is springing up at a distance, it may not be amiss for me to say, that some two months since one of the parties connected with an extensive drug firm, which for reasons above stated, were decidedly averse to the passage of the law in question, remarked to me that he believed, after all, it would in the end be advantageous to the trade; and upon my congratulating him upon his so soon realizing the fulfilment of the prophecy predicted by me from the first, and asking him what prompted his conclusion, he replied, that orders *now* came in a different shape; that a short time previous they received a very heavy order from a customer located in one of the principal towns of the west to the effect, that *every* article must be of the first quality, and such as he could guarantee to his customers; that whatever price asked would be paid, *and their house held responsible for their purity,* as it was now understood that adulterated medicines, as well as worthless drugs were no longer imported. The order he said was gladly filled on those conditions, and the amount charged, affording them a perfectly satisfactory profit, was as promptly and cheerfully paid. " Their customer was satisfied; they were satisfied; all were satisfied."

No medicinal chemical preparations of any importance have been presented to entry at this port since the law took effect. The agitation of the question for several months prior to the passage of the bill, doubtless had the effect of putting those engaged in the nefarious traffic on their guard; and as this country was the principal market for merchandise of that description, it is to be presumed that the manufacture abroad has been, in a great measure, discontinued. The worthy popular foreign manufacturing chemists who have never been known to send out from their laboratories an impure article, look, as far as I can learn, upon the law in question with much favor; and well they may, for their sales have in consequence greatly increased. This, however, is very readily accounted for, from the fact, that by stopping the importation of base adulterations and imitations, the genuine foreign articles are immediately in greater demand, for the reason, that the business of preparing the extensive variety of chemical preparations used in medicine is still in its infancy in this country. And now, while upon this subject, a matter of great importance to the profession generally, as well as to the community at large, very naturally presents itself, to wit, *home adulterations.* The strongest, and almost the only argument raised against the passage of the bill when before Congress, was, that it would be " offering a premium on home adulterations." A distinguished senator, who took this view of the case, admitted that he approved of the *principle* of the bill, and should vote for it, but maintained that the effect would be as he had stated. The friends of the measure pledged themselves to take care of our own people, if Congress would take care of the unprincipled manufacturers, speculators, and dealers abroad; and it is devoutly to be hoped that they will faithfully and fearlessly redeem their pledges at any sacrifice of time, watchfulness, and if needs be, money.

I, for one, never looked upon the passage of the law in any other light, than as the *first important step* towards the great reform so long, and so much needed; and *the profession must only so consider it.* Much yet remains to be done; something more than simple *professions* of friendship to the measure must now be brought into requisition. To suppose that we have none among us engaged, or who *will* engage in the preparation and sale of spurious and adulterated medicines, is to place a higher estimate upon the conscientious scruples of that portion of our speculating and trading community with whom the almighty dollar is paramount to all other considerations, moral, if not divine, than from my somewhat extensive observations, I am willing to concede. Even at this early day, the fraudulent work of their hands is but too visible. Within the last month or two, sulphate of quinine, in considerable quantities, bearing the label of Rosengarten & Denis, Philadelphia, has been found in market adulterated to the extent of some twenty or twenty-five per cent. The same may be said of quinine bearing the label of the London Alkaloid Company, London—likewise that bearing the label of Pelletier, Delondre & Lévailant, Paris.

Now, these frauds were perpetrated by our own people, or among our own people, and after the article, too, had come into the hands of the purchaser. The manufacturers sent them forth pure, and had nothing to do with the sophistication. Each of the firms named stand too high, and deservedly so, to warrant even a suspicion of such unpardonable baseness.

The material used for the adulteration of the quinine was found, on analysis, to be *mannite* and *sulphate of barytes*, in about equal weights. The latter article has long been used for this purpose, but not until lately has *mannite* been detected in the sulphate of quinine. It seems to have been ingeniously substituted for salicine, and a somewhat similar substance prepared from the poplar bark; which articles have heretofore been extensively used for like purposes.

The ingenuity consists in the fact, that it is much more difficult to detect the adulterations when effected by the admixture of *mannite*, than when by the admixture of salicine, &c. while the former can be furnished for less than one fourth of the latter.

I have likewise procured, and have now in my possession, a sample of French sulphate of morphine, adulterated by the admixture of some thirty per cent. of *amygdaline*, an article, which in this combination, defies all the ordinary tests for its detection; and which, like the mannite in the quinine above mentioned, can only be found and distinctly characterized in the mother water after the solution and re-crystallization of the true saline portion of the sophisticated compound.

Some other important medicinal preparations have been spoken of as having been found worthy also to be classed with "home adulterations;" but, as I have, up to the present time, only been able to obtain samples of impure sulphate of quinine, and of sulphate of morphine, I am in hopes that the opinion expressed relative to the other articles may prove incorrect. Should I, however, find the facts and the particulars as they have been stated to me, when I receive the samples which have been promised, I shall make them the subject of a communication for some one of our medical journals; as I feel that every fraud of the kind should be promptly and fearlessly placed before the public in a manner best calculated to command the attention of the profession generally throughout the country.

The question now very naturally arises, how comes this new method of sophistication, and why has this heretofore foreign practice been recently tranferred to our shores? I reply, that I have good reason to believe, that we have at present those among us from abroad, who have so long been engaged in this particular line of business that they have become perfect adepts in this base and deceptive art. For some years past, an extensive chemical establishment has been in operation at Brussels, in Belgium, built up at great expense and care, and expressly designed for the manufacture on a large scale of imitations of all the most important foreign chemical preparations used in medicine; while, at the same time, an agent was travelling in this country making sales, and soliciting orders in all the principal towns on our seaboard. This personage is no stranger to me, as I had to examine and pass his murderous wares through the custom house, in large quantities, until Congress, in enacting the present righteous sanatory measure, gave me the power to reject them. The articles were prepared and put up with consummate skill and neatness; and the imitation was so perfect, that it was impossible for the unsuspecting purchaser to distinguish them from the genuine, notwithstanding that in some instances they did not contain over five per cent. of the substance represented by the label. The only *Christian* act that as far as I am aware the agent performed while among us, was to sound the alarm in season; for since the law went into effect at this port, not a single package from that establishment has been presented for entry; but I regret to say, that if I am correctly informed, one, if not more, of the persons formerly connected with the Brussel's firm, are now in this country, engaged, to some extent, in the same iniquitous business; hence the ingenious adulterations before spoken of. I imagine, however, from certain proceedings which have been instituted, that their career among us will not be of long duration.

Thus it will be seen that as far as sophisticated chemical and medicinal preparations are concerned, we have now but little to fear from the foreign manufacturer and speculator, while we have *increased* cause for unceasing vigilance at home, not only as respects the finer preparations, but also that almost equally important class of medicines known to the trade as crude drugs, to wit: opium, barks, roots, medicinal gums, &c. &c. whether in a natural or powdered state and while each and every article; requires at all times the particular attention and scrutiny of the dispensing apothecary and physician, I will here remark, that the article sold and purchased under the entirely too comprehensive name of *Peruvian bark*, requires, in my opinion, much more attention than it has heretofore received either from the apothecary or the profession. It will be seen by the statement submitted, that the quantity of spurious and worthless cinchona barks which I have thus far rejected, amounts altogether to some thirty-four thousand pounds; and why have I rejected it? Simply because the article containing none, or but a trace of the natural alkaloids of the *true* barks, and consequently possessing no febrifuge properties, is of no more value as a medicine than any other moderately bitter vegetable substance, while at the same time, it is not only unsafe, and improper, but on account of the large excess of woody fibre it contains, decidedly dangerous to be administered in cases where the genuine bark in substance is called for.

The several barks here alluded to, although differing in physical appearance, are those generally known in the trade as the red and yellow Maracaibo and Carthagena barks; and as they resemble the true officinal barks in color, they have long been used in a powdered state for the purpose of adulterating those barks, or sold to the unsuspecting as the genuine article. This fact shows very clearly why it has long been almost impossible to find on sale in the country, or even in any of our minor drug and apothecary establishments in town, one pound of the red or yellow cinchona bark of the requisite strength and purity; or, in other words, that will afford, on analysis, a per centage of alkaloids corresponding with that produced by the genuine barks. Some samples that have been obtained afforded neither quinine nor cinchonine in any perceptible quantity!! Others less than one fourth part of the alkaloids found in the true and pure barks; and so upward, according to the extent of the adulteration. From the quality of samples that have been forwarded to me from a distance, I am satisfied that the country is filled with such base mixtures and worthless trash; and it will take some time, with all the watchfulness that the profession can exercise, to get rid of the evil; an evil that must be deeply felt in those sections where the peculiar type of their fevers calls for an almost constant use of the cinchona in one form or another.

In view of these facts, I have from the first invariably refused to admit these spurious barks, notwithstanding my refusal has subjected me from interested parties to unqualified denunciations and reiterated threats of vengeance, even to expulsion from my post, doubtless to make room for some one of more easy medical virtue. The rejection of no other article of drugs has excited so much indignation; and I regret to remark that the dishonest and unpardonable traffic is held on to by some of our speculating traders with a tenacity truly deplorable; but when I say that the spurious barks cost, delivered in this market, on an average only some *six cents* a pound, while the genuine costs *eighty* cents, it is not difficult to fathom the cause of these ebulitions of wrath so profusely showered upon me. I shall continue, however, *fearlessly* to do my duty in carrying out the intent of the law, though the heavens fall and I fall with them.

Some fifty different plants have been placed under the genus cinchona by various authors, while only the barks of three species are recognized as officinal, to wit, the true yellow or calisaya bark, (cinchona cordifolia,) the true red bark, (cinchona oblongi folia,) and the true pale, loxa or crown bark, (cinchona lancifolia;) all producing the natural and important alkaloids; the two first producing both quinine and cinchonine; the last, cinchonine only.

The following are some of the descriptive names given to a large number of varieties of these plants, which have not only thus far defied the skill, examination and research of naturalists and botanists to establish satisfactorily their specific identity, but have an account of their varied and irregular foliage, location, &c. &c.

given rise to a wide difference of opinion as to the manner in which they should be classified, to wit:

Cinchona, condaminia.
do. lanceolata.
do. augustifolia.
do. ovata.
do. magnifolia.
do. glandulifera.
do. gratissima.
do. corymbifera.
do. excelsor.
do. phillipica.
do. pubescens.
do. glabra.
do. nitida.
do. officinalis.
do. afroinda.
do. caribæa.
do. rotundifolia.
Cinchona, hirsuta.
do. ovalifolia.
do. scrobiculata.
do. caduciflora.
do. stenocarpa.
do. micrantha.
do. purpurea.
do. rosea.
do. macrocarpa.
do. petalba.
do. dichotoma.
do. acutifolia.
do. macrocalyx.
do. crassifolia.
do. humboldtiana.
do. pavonii.
&c. &c.

Thus it will be seen that a wide field, but imperfectly explored, is still open, inviting the attention of the profession to one of the most important curative agents to be found in the whole range of the materia medica. Samples of the different barks should be obtained and analytically examined, and approved or condemned, as they are found valuable or otherwise for medicinal purposes; thus narrowing down and establishing an officinal standard for those barks worthy a place in our pharmacopæias and dispensatories.

While it has been my duty under the present law to shut out large quantities of worthless crude drugs, it has been gratifying to me at the same time, to observe a steady, increased, importation of superior articles of the kind; articles of such a quality as were not sent to this market at all, or but rarely, as long as the inferior and worthless were admitted to entry; and the consequence is, as I have before remarked, honest importers and dealers freely admit, that the practical working of our drug law has already raised the standard of medicines very materially.

The question now very naturally and properly comes up, will these prime crude drugs, after having been powdered and prepared, be found on sale in town and country in as pure a condition as when imported; or in other words, be found free from adulteration. I fear not, unless a strict watch is kept over the operations of the *unprincipled* portion of those among us whose mission it is "to buy, sell, and get gain;" honestly if they can; if not, get it.

It has heretofore been too frequently found that drugs become astonishingly reduced in strength and purity during their transition state from root, bark, gum, &c. &c. to powder. Prime fresh drugs are no doubt, (as well as worthless,) sent to the drug-mill; but some how or other, "by falling into bad company," I suppose, they are very apt during their stay to lose their virtue; and as a matter of course are returned to their owner, and sent out into the market, with a character decidedly tarnished—an article fair to look upon, but whose touch is death. Badinage apart—the business of drug-grinding or powdering requires a searching and thorough *reform.*

I have already alluded to the mysteries and trickery of the laboratory when in skilful but dishonest hands—but be assured sir, its conjurations and diablerie, if I may so express myself, in the preparation of adulterated chemical medicinal compounds, hardly exceed in ingenuity, deception and iniquity, the frauds committed under the roof of the drug-mill.

I have in my possession the voluntary confessions of a drug-grinder, who has retired after amassing a fortune in the business; but I will not swell this report by entering at this time into an extended detail. That duty shall be performed by making it, at some future time, the subject of a chapter in the chronicles of *imperatively demanded* reforms. Suffice it, then, to say, that most of the *farinaceous* substances, such as rye, corn, wheat, rice, gray sago, &c. &c. together with various coloring agents, are too frequently, if not constantly, to a greater or less extent, brought into requisition—to say nothing of the mixing in the mill of a large portion of the inferior with the good article; as well as the mixing two or more articles entirely dissimilar in their active principles, such a combination, for instance, as crystals of cream of tartar, alum, and whiting!! This last villanous compound, when nicely powdered, is denominated at the mill "grocers' cream of tartar;" but that it is sold and dispensed, particularly in the country, as a genuine article, I have the best of reasons for believing. No wonder, then, (if this article is used by bakers, by families in baking, and for medicine,) that dyspeptic complaints have of late years increased in a tenfold degree. I have several samples of powdered drugs in my possession in which have been detected the above mentioned adulterations.

This is a very important subject, and one, too, which the profession throughout the country, as well as the medical staff of the army and navy, whether on duty at a distance, or at home in hospital practice, should lose no time in investigating; for how is it possible for the physician to do justice either to his patient or himself, however judicious and correct his prescriptions may be, as long as there is so much uncertainty as to the strength and purity of the curative agents he may recommend? I cannot but believe that many, very many valuable lives have been lost, owing to this lamentable condition of things. Would our medical writers say more of the *active principle* of the various remedial agents, as well as *strength*, *purity* and *uniformity*, and less of the endless, and not unfrequently *utopian* methods of application, they would, in my opinion, render a much greater service to the profession and their fellow men.

All crude drugs lose a greater or less per centage of their weight in drying and powdering; and the deficiency is too frequently made up, or more than made up, as the case may be, by the addition and admixture of the farinaceous and other ingredients above named. Good opium, for instance, containing the usual moisture, when fresh, loses during the process some fifteen or twenty per cent; but as full weight, or increased weight must be returned to the owner, the knight of the mill obeys instructions, and mingles in his hopper such proportion of foreign substance as the cupidity of his customer requires; and thus I might continue through the preparation of the whole tribe of crude drugs.

For the sake of humanity, I would fain hope that there might be some few exceptions to this general rule; but, if so, I have reason to believe that they are exceedingly rare. It will thus be seen that *this* species of "home adulteration," like that of the sophisticated chemical preparations already spoken of, is an evil of great magnitude, and one that calls equally loud for reform. Not only justice to the community at large, justice to the profession, but justice to the *honest importer* and *dealer* demands the prompt application of an efficient remedy to these villanous and murderous practices.

This well known and unpardonable conduct on the part of unprincipled traders has been the only cause of dissatisfaction manifested by any of the honest importers since the passage of the law in question. They say, and with reason too, that while they are not only compelled, but *desire* to import none but genuine drugs and medicines from abroad, they deem it but common justice that our own people should be prevented from taking the very articles which they have selected with so much care, and imported at an advanced outlay of capital, and converting them into base and dangerous compounds, similar to those which the law prevents the importation of.

This business of home adulterations is no new discovery. It has too long been practised among us with impunity, for the reason that previous to the present drug law it was almost impossible to fasten the fraud upon any particular individual. The almost invariable reply of the dealer to any complaints of his customer that articles previously purchased did not prove genuine, as recommended, was, "I am very sorry, but they were just as imported"—leaving it impossible for the purchaser to say whether the truth had been told him or not. The case is now happily otherwise. By the passage of this law, that *loophole* of escape, ("just as imported,") is closed, taking it for granted, by the way, that the special examiners, at the different ports, do their whole duty.

Thus it will be seen that hereafter it need not be a difficult task to trace such adulterations, &c. as may be found in the market to their guilty source. But, says one, "How shall the good work of detection and reform in these matters be commenced, in order to be effective?" In reply, I would respectfully suggest, that tho National Medical Association, at their next meeting, should appoint a committee composed of *two* or more from each state whose duty it shall be to closely scrutinize powdered drugs, and *all other* medicinal preparations found on sale throughout the country; and of those suspected, let them purchase small quantities, and subject the same to analysis; and if they prove to be of inferior strength, or to have been fraudulently prepared, let the fraud be promptly exposed through the columns of our numerous medical and other journals; and let the committee report all particulars at the next annual meeting of the Association.

This course will not only bring public opinion to bear upon the subject, which sometimes proves all-powerful, but what is of great importance, will place the profession in the possession of such *facts* and *data* as will be absolutely *indispensable* to insure success, should they, as a last resort, for the purpose of entirely eradicating the evil, be compelled to make a united appeal to the different state legislatures of the union for the enactment of such laws, penal or otherwise, as may be deemed most judicious, and at the same time most effective. I am inclined to believe that a movement of the kind would be attended with the most beneficial results. Very few wholesale and jobbing drug houses, with a knowledge of such a *surveillance* over them, would be apt, in my opinion, to risk their reputation and the success of their business by sending forth from their establishments spurious and adulterated medicines, with an almost moral certainty of the fraud being exposed and fastened upon them. The same fear of detection and exposure at the sacrifice of their business, would induce the country dealers to order no articles of medicine from the principal markets but such as they could guarantee, as *genuine*, to their customers. Furthermore, under such a *rēgime*, faithfully administered, the *demand* for adulterations and worthless medicines would cease, and consequently their manufacture.

Should, however, the power of public opinion not prove sufficiently omnipotent, the strong arm of the law must be brought into requisition.

The last number of that valuable and ably conducted work, the American Journal of Pharmacy, speaking of the effects of the present drug law, holds the following language :—" The general government has nobly done its part—it remains for the state legislatures and executives to look into this important subject, and ascertain what there is for them to do that will benefit the public interests over which they are appointed to watch ;" and most cordially do I respond to the truthfulness of the remark. The Journal again, in the same article, very properly insists that as one remedy for the evil complained of, the business of dispensing medicine should be confided exclusively to those properly qualified ; and goes on to say, that as " long as herbalists, grocers, and general store-keepers can vend not only drugs, but active and important pharmaceutical preparations, of whose composition and strength they are ignorant, and of whose qualities they are unable to judge, there is a ready market for adulterations."

There can, we think, be but one opinion as to the importance of the reform here indirectly recommended ; and the sooner we have, in this country, (as have long existed in most parts of Europe,) stringent laws regulating the retailing of drugs and medicinal preparations, the better it will be for the community at large, as well as for the profession generally.

It is worthy of remark, that the practical working of our drug law has already awakened a commendable spirit of scientific inquiry, not only among the profession, but among our regular dispensing apothecaries. They now begin to discover that a more intimate knowledge of *analytical* chemistry than has heretofore been generally cultivated is indispensable to a satisfactory exercise of their professional duties ; and it is truly gratifying to observe that many are now engaged in perfecting themselves in that important and interesting science, with a devotion worthy of all praise.

A small manual, in pamphlet form, if you please, (for distribution,) containing a full description of *all* the known sophistications in medicines, and also plain instructions, free from unnecessary technicalities, as to the most simple and certain method of detection, would be of surpassing value to the profession throughout the country ; and under the auspices of the New-York Academy of Medicine, or the National Medical Association, I am sure that many of our eminent chemists would gladly aid in advancing so important and praiseworthy an object.

It must be admitted, that thus far, in this country, too little attention has been paid to analytical chemistry as a necessary qualification of those who are expected, at all times, to speak understandingly, not only of the quality and *identity* but, *quantity* of the active principle contained in all medicinal agents, whether crude or prepared, simple or compound, that may fall under their notice ; but as the progress of medical reform, with us, *must* hereafter be onward and upward, urged forward, as it is, by the most brilliant lights of the profession—men who are destined to occupy the highest niches in the temple of fame ; it is to be hoped that our medical institutions will soon make such addition to their requirements and means—notwithstanding it may subject the student to a somewhat greater expenditure of time and money—as will enable the professor of chemistry, without pecuniary loss, to afford his class such extended and increased facilities as with proper attention will not only render them proficient in the science of analysis, but expert manipulators. Again, should each institution supply itself with an extensive, conveniently arranged, and well selected cabinet of materia medica, for the use of the professor of that science, and to which he would direct the attention of his class, while it would enable him to lecture from *samples* of the substances either crude or prepared, as the case might be—immense benefit would, in my opinion, result therefrom.

I cannot, myself, see any good reason why it is not as important that a medical student should before graduating become as familiar with the physical appearance, composition, peculiar qualities and strength of each and every remedial agent he must, of necessity, be called upon to prescribe, as it is for him to acquire that intimate knowledge of everything pertaining to osteology and myology, which is very properly deemed indispensable.

With all the various works on medical botany and materia medica which our countrymen have produced, we have no *American* work containing a full and satisfactory analysis of medicinal plants, &c. &c. ; and if we desire to see a *full* and *perfect* analysis of the vegitable substances, &c. used in medicine, we are of necessity compelled to have recourse to the published labors of the analytical chemists of a foreign land—to such names as Berzelius, Vauquelin, Vogel, Meissner, John, Tromsdorff, Geiger, Bucholz, Brandes, Pelletier, Caventau, &c. &c. ; but let the above suggested requirements and facilities be established, and reasonable encouragement afforded to those desirous of distinguishing themselves, and many years will not elapse before we can boast, not only of *American* analysts of note, but works of intense interest and greatly needed on the medico-botanical resources of this our glorious country—a land of almost unlimited extent—embracing every known geological, and mineralogical formation, and blessed with every variety of soil and climate.

We shall then, also, be enabled to have an *American* analytical standard of medicinal agents, embracing the widest range of the Materia Medica; one which will prove of inestimable value to the profession, and of lasting honor to those who zealously and *unfalteringly* push on the column of medical reform.

And now, dear Sir, in closing this, I fear too long and tedious report, (for the theme is almost inexhaustible,) I cannot but indulge the hope that the Academy will kindly pardon the hasty and disjointed manner in which it has been written ; and, should the facts and suggestions it contains be found important and effective in the cause of reform, and serviceable to my profession—the noblest, the most arduous and self-sacrificing profession on earth ; I shall feel amply compensated for any trouble I have taken in its preparation, in the pleasing and gratifying reflection that I have, even in some slight degree, aided in advancing the welfare of my fellow men ; and as far as the detached moments of leisure at my command would permit, satisfactorily performed the duty requested of me.

With great regard, very truly and respectfully, your obedient servant,

M. J. BAILEY,

Special Examiner of Drugs, Medicines, &c.

PART SECOND.

BIBLIOGRAPHICAL NOTICES.

Art. VII.—*A Practical Treatise on the Domestic Management and most important Diseases of Advanced Life.* With an Appendix, containing a series of cases illustrative of a new and successful mode of treating Lumbago, and other forms of Chronic Rheumatism, and Sciatica and other Neuralgic Affections, and certain forms of Paralysis. By George E. Day, M. D. Fellow of the Royal College of Physicians, &c. &c. Philadelphia, Lea & Blanchard, 1849. 8vo. pp. 226.

Old age, as well as infancy, has its own therapeutics, peculiarities of constitution attendant upon certain periods of life modify remedial agents in their action upon the human organism to such a degree that the scientific physician, even, is often struck with surprise. But remedial agents are not alone modified in their action upon the aged—diseases—functional and organic, are in a great degree altered or modified in their ætiology, symptomotology, and especially their pathology. Dr. Day's object in the preparation of this work has been to render available to the English physician, in a condenced form, all the facts which the accumulated experience of ages has furnished on this subject. In the execution of this task he has been remarkably successful. There are points, however, in this work which we would most gladly have seen rendered more perfect. Such, for instance, as the special physiology and pathology of the diseases of advanced life—points of great interest to the practitioner—and points, the careful exposition of which tend to render far more intelligible the prophylactics and therapeutics of old age. A very important addition to the volume is the extensive bibliography which it contains ; this, together with the fact that in the preparation of it Dr. Day has freely drawn upon the excellent work of Canstatt's,*—a work only accessable to the German reader—renders the volume peculiarly desirable to the practitioner for reference and consultation.

Art. VIII.—*Anæsthesia, or the Employment of Chloroform and Ether in Surgery and Midwifery, &c.* By J. Y. Simpson, M. D. F. R. S. E, Professor of Midwifery in the University of Edinburgh, Physician, Accoucheur to the Queen in Scotland, &c. &c. Philadelphia, Lindsay and Blakiston, 1849. 8vo. pp. 248.

This work of Professor Simpson comprises the substance of several essays, written by him, and published in the Edinburgh Medical Journals, together with the results of his experience communicated to the various Medical Societies of that city, as reported in their proceedings. They have been collected and arranged by the Author into this volume, which embraces the most complete history of Anæsthetic Agents accessible to the American Practitioner. "The Author does not confine himself to his own extensive experience, but has collected with great care, the results, as shown in the practice of the different public hospitals of Great Britain, Ireland, and, as far as could be obtained, of Paris; thus adducing the important evidence of medical statistics to show that the rate of mortality is actually diminished under their use, in addition to the abrogation of pain. He has also obtained the experience of several eminent practitioners in regard to their value." The work is divided into four parts. Part first embraces Anæsthetics in Surgery. Part second, Anæsthetics in Midwifery. Part third, the nature and powers of various Anæsthetic Agents; and Part fourth, Local Anæsthesia. It also contains an answer to the objections to Anæsthesia in Midwifery, adduced by Professor Meigs, of Philadelphia. We know of no work on this subject to which we can recommend the practitioner with so much confidence as this.

Art. IX.—*Chemical Analysis, Qualitative and Quantitative.* By Henry M. Noad, Lecturer on Chemistry at St. George's Hospital, &c. &c. With numerous additions. By Campbell Morfit, Practical and Analytical Chemist, &c. &c. With Illustrations. Philadelphia. Lindsay and Blakiston. 1849. 8vo. pp. 572.

This work was prepared by the author as one of a series of chemical treatises for the "*London Library of Useful Knowledge.*" The editor it appears has found little else to do than to make such additions as are called for by the latest investigations in chemical analysis. To the Analytical Chemist this work is of exceeding value. It may be properly considered a complete manual both of qualitative and quantitative analysis in organic and inorganic chemistry. Messrs. Lindsay and Blakiston deserve much praise for the neat and tasty manner in which this valuable volume is brought out.

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* *Die Krankheiten des höheren Alters und ihre Heilung.* Erlangen, 1839.

Art. X.—*Practical Pharmacy; The Arrangements, Apparatus, and Manipulations of the Pharmaceutical Shop and Laboratory.* By Francis Mohr, Ph. D. &c. and Theophilus Renwood, Prof. of Chemistry and Pharmacy to the Pharmaceutical Society of Great Britain. Edited, with extensive additions, by William Procter, Jun. Prof. &c. Illustrated by five hundred Engravings on wood. Philadelphia. Lea and Blanchard. 1849. 8vo. pp. 576.

To the pharmaceutical profession this work must be hailed with pleasure; neither is it devoid of value to medical practitioners, especially those residing in the country, who are called upon to discharge the duties of the pharmaceutist as well as physician. Designed more especially by the American editor for the American apothecary, it will, nevertheless, from its intrinsic merit, pass into the hands of many of our country physicians, who we are sure will here find a volume desirable alike for the rich and important information it contains, the neat and tasty manner in which its publishers have brought it out, both as it relates to its typographical execution and the beauty of its numerous illustrations. We regret that our limited space in this number prevents us from laying before our readers selected portions of its matter. Suffice it to say, that we know of no work so thoroughly calculated to supply the wants of the pharmaceutical public as this.

Art. XI.—*Treatise on Epidemic Cholera; being Lectures delivered under the Authority of the Faculty of Medicine of Paris.* By Ambroise Tardieu, M. D. Adjunct Professor in the Faculty of Medicine, Physician of the Central Bureau of the Hospitals of Paris. Translated from the French by Samuel Lee Bigelow, M. D. With an Appendix, by a Fellow of the Massachusetts Medical Society. Boston, Ticknor, Reed, and Fields, 1849. 12mo. pp. 286.

Report on the Cholera in Paris. Published by authority of the French Government. Translated from the original, and printed by recommendation of the Board of Health, and the Academy of Medicine of the city of New-York. New-York, S. S. & W. Wood, 1849. 8vo. pp. 198.

Cholera : Its Causes, Symptoms and Treatment, Considered and Explained. By J. P. BATCHELDER, M. D. New-York, Dewitt and Davenport, 1849. 12mo. pp. 45.

By reference to the preface of the work, whose title stands first in this article, we learn that its author was appointed by the Faculty of Medicine of Paris to supply the place of Professor Duméril in the chair of Medical Pathology, for the years 1848-49, and that he took the opportunity to give a full exposition of the history of epidemic cholera. The great value of this work lays in the fact that it contains a faithful resumé of the innumerable publications which have appeared in France and elsewhere since 1830. These lectures " comprehend at once pathalogical descriptions, anatomical and chemical researches, historical facts, both geolographical and statistical, considerations upon the particular and general causes, political information, sanitary measures, and hygienic and therapeutics prescriptions methodically presented and carefully considered." The present epidemic has been followed even to the latest dates, its rout has been accurately marked out, and its peculiarities distinctly and faithfully given. In the appendix, the American Editor, Dr. Morland, has posted up to May last all that relates to its history and treatment in this country, thus making this volume, as a whole, the most perfect and desirable extant. We heartily recommend it to our readers, and shall be very much disappointed if it does not meet with its just deserts—a wide and extended circulation.

The French Report, ably translated by Mr. Barthélemy, of this city, was drawn up by a commission consisting of ten members, appointed by the French Government, and comprises the history of cholera as it appeared in Paris in 1832. Its simple history, however, is not alone embraced in this report—all that relates to the subject in a scientific point of view, (if we except its occult cause, symptoms and treatment,) is here presented. The patient and untiring industry of the committee, manifested on almost every page—the carefully prepared maps and tables—the minuteness of its statistical details—its entire freedom from theoretical discussions—and the eminent scientific ability of its authors, will commend this report to the scientific reader, whether professional or non-professional, in a high degree, as one worthy of his careful attention and perusal. The translator, in bringing it before the American public, and the Board of Health, together with the New-York Academy of Medicine in recommending its publication, deserve our warmest commendation and thanks.

In the preparation of his essay, (for such we must consider a part of it at least,) Dr. Batchelder has evinced much thought and study. By watching closely the phenomena which this disease evinces he has endeavored to deduce the laws by which it is governed. How far he has succeeded in the accomplishment of the task he has undertaken we must, for the present, leave the reader of the work to decide. On a future occasion we intend to lay before our readers, in detail, the leading views and facts contained in the works we have now, of necessity, hastily noticed.

Art. XII.—*Treatise upon the Nature and Treatment of Morbid Sensibility of the Retina, or Weakness of Sight* Being the dissertation to which the Boylston Medical Prize for 1848 was awarded upon the following question:—"What is the Nature and best mode of Treatment of that Affection of the Eye, commonly called Morbid Sensibility of the Retina?" By John H. Dix, M. D., M. M. S. S. Boston, William D. Ticknor and Company, 1849. 12mo. pp. 146.

This is a creditable addition to our home literature. It treats of a subject of every day interest to the practitioner. Weakness of sight, or incipient amourosis, is a difficulty of frequent occurrence, and one of which scarcely any notice is taken in the treatises or opthalmic medicine. Doctor Dix suggests the borrowing and appropriating to the disease the name of "Asthenopy," "as being, if not actually explanatory, at any rate not false in its signification."

Art. XIII.—*A Conspectus of the Pharmacopœias of the London, Edinburgh, and Dublin Colleges of Physicians, and of the United States Pharmacopœia.* Being a practical compend of Materia Medica and Pharmacy. By Anthony Todd Thompson, M. D. F. R. S. &c. &c. The fifth American Edition, much enlarged and improved. Edited by Charles A. Lee, M. D. Professor of General Pathology and Materia Medica, in Geneva Medical College. From the thirteenth English edition. New-York, S. S. and W. Wood, 1849. 12mo. pp. 324.

The extensive circulation which this little volume has heretofore met with precludes the necessity of our saying anything in its praise. The present edition has received additions to the amount of twenty pages, the value and importance of which the reader will easily appreciate.

Art. XIV.—*The Maternal Management of Children in Health and Disease.* By Thomas Bull, M. D. Member of the Royal College of Physicians, Author of "Hints to Mothers," for the management of their healths, &c. &c. From the third London Edition. Philadelphia, Lindsay and Blakiston, 1849. 12mo. pp. 406.

To supply the wants of that class of persons for whom this volume was written, we know of no work so thoroughly adapted. We feel assured that it will meet with a ready sale.

Art. XV.—*A Manual of Auscultation and Percussion.* By M. Barth, Agrégé to the Faculty of Medicine of Paris, &c. &c. and M. Henry Roger, Physician to the Bureau Central of the Parisian Hospitals, &c. &c. Translated, with additions, by Franois G. Smith, M. D. Lecturer on Phisology in the Philadelphia Association for Medical Instruction; one of the Editors of the Medical Examiner, &c. &c. Second Edition. Philadelphia, Lindsay and Blakiston, 1849. 12mo. pp. 167.

We have here the second edition of a valuable little volume, intended for both students and practitioners; its great merit consists in its compact form, which will continue to render it desirable for hasty reference.

Art. XVI.—*The Uses and Abuses of Air:* Showing its Influence in Sustaining Life and Producing Disease. With remarks on the Ventilation of Houses, &c. &c. In three parts. New-York, G. S. Redfield, 1849. 12mo. Parts 1st, 2d, 3d, pp. 249.

This work comprises No. 2 of the series of "Tracts for the People." It is written by a member of our profession, well known for his indefatigable industry in behalf of Sanitory Reform. The work embraces a full and careful exposition of the principles relating to the subject of ventilation in general, and is calculated to do much good. It may, with profit, be consulted by the professional, as well as the non-professional reader. It is illustrated with numerous lithograph, colored plates, which at once convey to the mind of the reader a clear impression of the principles set forth in the text. We sincerely wish for it that reception which its intrinsic merit deserves.

PART THIRD.

FOREIGN MEDICAL RETROSPECT.

PATHOLOGY AND PRACTICAL MEDICINE.

A Statistical Inquiry, as to whether the proportionate Freqency, the Nature, and the principal Characters of Diseases have undergone in the course of time, the great Modifications they are said to have done. By M. VALLEIX.

The object the author has in view, in the present communication, is to determine whether, by the study of certain diseases in a diagnostic point of view, during an epoch not far removed from our own, and one that is remarkable for its revolutions in its medical doctrines, we may arrive at certain conclusions, capable of being generalized and applied to anterior periods. It is continually asked, whether such or such a disease existed heretofore?—whether it prevailed as frequently formerly as now?—and whether changes in the hygiene, the progress of civilization, or other more or less powerful influences, have not operated changes in our affections? In reply, we are obliged to confine ourselves to vague generalities.

The period M. Valleix has chosen for examination is the twenty years intervening between 1819-39, during which, facts of such an importance have occurred as to have almost totally changed the face of science; so that a person, conversant with internal pathology only in works written before 1819, would scarcely comprehend the physicians of the present age. In 1818 appeared the last edition of Pinel's Nosographie Philosophique, which had constituted the code of medicine in France for twenty years before. The author had, however, now reached the end of his reign, although the attacks of Broussais had not yet completed his dethronement. The latter published his 'Examen' in 1816; and *his* domination may be said to have continued from 1820 to 1830; to be submitted then, in its turn, to attacks no less vigorous and successful; leaving behind, however, certain general views of undoubted utility, and which have put us on the track of important discoveries. In a third period, from the fall of Broussaisism, we have the prevalence of "rigorous medicine," exact observation and assiduous experiment, replacing doctrines founded on hypotheses and ill-observed facts. Typhoid fever now took the place of that gastro-enteritis, which itself had so violently displaced the ataxic, adynamic, bilious, putrid, &c. fevers of former times. Just as the system of Pinel was about yielding to that of Broussiais, in 1819, appeared Laennec's work on Auscultation, imparting a precision to the diagnosis of certain diseases, of material service in solving the question before us.

M. Valleix, having had his attention directed to the large number of deaths from *pneumonia,* occurring at the Saltpêtrière, (the hospital for aged persons,) examined the mortuary list for a long period back, and discovered most remarkable differences in the proportional frequency of this and other diseases. Laennec's work, having been published only in 1819, it required some time to educate physicians in auscultation. Thus, we find, from 1819 to 1821, 60 deaths per annum are set down to *pulmonary catarrh,* a number which, now we know how rarely this of itself produces death, seems enormous. From 1821 to 1829, the number averaged but 14 or 15 ; and from 1829 to 1839, but 19 per annum. Were cases of *phthisis* mistaken for pulmonary catarrh during the first period ? No : for to this disease is also assigned a higher figure (39 and 40,) than in later years, when it varied from 20 to 24. Nor do cases of mistaken *pleurisy* explain the difference ; for the numbers of these, during the three periods, were respectively 30, 10, and 42. This latter discrepancy of numbers is to be explained by the fact, that, when auscultation was little known, many cases were, from the presence of pain in the side, cough, &c. set down as pleurisies. In the middle period, much hesitation prevailed in pronouncing upon such cases, while the more perfected knowledge furnished the high proportion of the third, and which, probably, in future will be maintained. The true explanation of the diminished number of deaths from pulmonary catarrh, is the vast increase of those proved by auscultation to be due to *pneumonia,* in the aged, as we shall presently see.

The consideration of the *cerebral affections* present analogous facts. From 1819 to 1821 *apoplexy* was alone familiarly known. Ramollissement, the paralysis of the insane, and encephalitis were nearly unknown. From 1819 to 1821 there were 158 deaths per annum attributed to *apoplexy,* which, in 1821-29 sank to 59, and continued at much the same figure (61) during 1829-39. A more exact knowledge of cerebral affections, derived from the investigations of Rostan, Lallemand, Calmeil, Foville, and others, explains this. Thus, in 1819-21, *ramollissement* is only assigned twice as the cause of death, and during the next period, information on the subject not yet being very accurate, it was generally confounded with encephalists ; but, during the next period, the number averages 22. Add the 22 to the 61 apoplexies of this period, and abstract it from the apoplexies of the first, and an approximation of numbers commences. As to *encephalistis,* during the prevalence of Broussaisism, most cerebral affections were so termed. Thus, during 1819-39, two or three deaths per annum are dated ; during 1821-29, 48 ; and, during 1829-39, when ramollissement asserted its claims, only 16. Add the 48 encephalites to the 5 ramollissement, and the 59 apoplexies of the Broussaisian period, and we have 112 ; while, if we abstract from the 161 of these diseases of the first period, the 53 of the encephalites and ramollissement of the second, we have 108—a not very different figure from 112. Next, if we add to the apoplexies and ramollissements of the third period, the 16 encephalites, we have the number 99, which forms some approach to that of 123 obtained by abstracting the 38 ramollissements and encephalitis from the 161 of the first period. The *general paralysis* of the insane will serve to fill up the lacunæ. Thus, while, in the two former periods it only furnished 4 deaths, during the third it furnished 24.

We have now seen a disease, as it were, enveloping in itself, and concealing the existence of three others, of a different nature, though occupying the same seat. We next have to observe several others, of apparently different nature, become sunk and lost in one which absorbs them all. During 1819-21, the word *fever* was still pronounced, though tremblingly, and we find 71 deaths attributed to adynamic, and 39 to 40 to ataxic fever. During 1821-29, the adynamic sank to 19 or 20, and the ataxic to 6 or 7 ; while, during 1829-34, the diminution is still more complete,—the adynamic sinking to 3 or 4, and, after 1834 disappearing altogether, and the ataxic being noted but once a year. What has become of all these fevers ? During 1816-21 little mention was made of *enteritis*, (23 per annum) and *gastro enteritis* (9), but, during 1821-29 they averaged 36 and 37 respectively. It is evident that many fevers became thus transformed ; and the proof of it, is the great diminution of these inflammatory affections since the fall of Broussaisism ; but the adynamic and ataxic fevers have not reappeared to replace them. Both the fevers and the inflammation have, in fact, disappeared ; and, for the explanation of this we must return to the consideration of *pneumonia*. During 1819-21 this disease figures at 72 per annum ; during 1829-39, at 110 ; and during 1829-39 at 256. Take from this 256 the 72 of the first period, and we have a residue of 184, which has furnished the material for the ataxic, adynamic, putrid, and other fevers, gastritis, gastro-enteritis, and, as we have seen, fatal pulmonary catarrh. Strange is the fact, that Pinel, himself physician to the Salpêtrière, furnished from this very hospital a description of fevers, recorded at the time with enthusiasm ; and that these fevers, now termed typhoid, are no longer found within its walls. Stranger still, that Broussais, who saw imaginary gastritis or gastro-entertitis, could not see a real pneumonia ! It can now, however, be no longer doubted, that pneumonia is *the* acute disease of the age, and is, in fact, almost the only one, after a certain age, that occurs.

The general conclusion to be drawn from all that precedes is, that we must not blindly rely upon the statements of authors, to the effect that different diseases have appeared or disappeared at certain epochs, or that they have undergone much change in severity and frequency. We should first assure ourselves that such authors have not been deceived by a simple change of name, and have not thus transformed one disease into another.—*Brit. & For. Rev. from L'Union Médicale.*

Analysis of the Treatment of Cholera by several recent Writers.—Dr. Venables is decidedly opposed to the use of brandy and other ardent spirits and essential oils. "In the stage of collapse, the best method of inducing reaction, is by the repeated administration of a warm saturated solution of salt, till full vomiting, with some degree of reaction succeeds. (*Nature and Treatment of Cholera*, p. 35.)

Dr. Andreyeoski, of the Russian army, in Circassia, has communicated to Mr. Guthrie of London, the formula for the celebrated elixir of Woroneje. Among the Russian forces it was considered a specific. It is as follows: R. Spir. vini rec. ℔viiss. Sal Ammon. ʒj. Nitri depurati, ʒj. grs. xv Piperis ʒj. grs. xv. Aqua Regia ʒss. Acetat. vini ℔iss. Petrolei (naptha) ʒss. Ol. olivæ ℥ss. Ol. meuth. pip. ℥vij. Digere per horas xii. et cola; capiat coch. ij. parv. pro dosi quartâ parte horæ. (*Med. Gaz. June* 23, 1848.)

M. Baurimont mentions the great success which he has found to succeed the following treatment. *For internal use.* A hot and copious infusion of the flowers of the lime or linden tree, with 4 to 8 grammes (60 to 100 grains) of bicarbonate of soda in each quart. *For external application.* Extensive mustard poultices to the lower extremities, and continual friction of a liniment formed of equal parts of oil and ammonia. (*Proc. of Paris Acad. of Sci.*)

Dr. Graves tells us that he has tried calomel, and seen it tried in every form and dose, but it has signally failed. He has found the following treatment most successful: A scruple of the actate of lead combined with a grain of opium was divided into twelve pills, and of these one was given every half hour, until the rice-water discharge from the stomach and rectum began to diminish. He says that in all cases, where medicines promised any chance of relief, this remedy was attended with the very best effects. Of the success of this treatment Dr. G. has received the most gratifying letters from numerous practitioners in India (*Clinical Lectures*, p. 420.)

Dr. Hird, in cases where the evacuations were watery, and contained very little or no bile, has found that a powder containing five grains of calomel and half a grain of opium, administered immediately, and followed up with a grain of calomel, a quarter of a grain of opium, two grains of cayenne and five grains of sugar, every half hour or hour, in proportion to the symptoms, tended to restore the secretions much more effectually than the one or two scruple doses of calomel, and two or three grains of opium, repeated at longer intervals. When the characteristic rice-water evacuations, and other symptoms of the second stage set in, Dr. H. found the greatest benefit from the acetate of lead in two or three grain doses in combination with five minims of Battley's solution of opium and spirits of cinnamon, every half hour. (*Med. Gaz. Nov.* 3, 1848.)

Mr. Baker, of the Bengal Establishment, says that he thinks that the most successful treatment was an emetic in the first instance, which induced full vomiting, quite different from the spasmodic action caused by the disorder; afterwards five-grain doses of antimony with or without calomel; bleeding; mild purgatives; flannel rollers to the extremities; lemonade, tea, plain water, or soda-water.—(*Lon. Med. Gaz. Nov.* 17*th*, 1848.)

Drs. Hill and Ferguson, in the Peckham House Asylum, treated by means of chloroform, as the sheet anchor, thirty-seven cases of confirmed cholera, all of them presenting the whole of the following symptoms, viz. vomiting, purging, cramps, and collapse;

while in many of them the characteristic blueness of countenance and extremities was well marked. Of the 37 cases there were relapses 6, recoveries 31, and deaths 12. The success of the treatment was quite satisfactory. (*Lond. Med. Gaz. Nov. 24th,* 1848.)

Dr. Chambers says, as a general rule, I advise the administration of forty minims of tinct. opii in an ounce of brandy, and an equal quantity of hot water. Half this may be repeated every 30 or 40 minutes until the third dose has been given, after which it will be better to pause for half an hour. In the interval ten minims of oil of peppermint or of cajeput may be given on a lump of sugar or diffused in barley water, or an æther draught, or ʒ i. sal volatile. Should the stomach not retain liquids, a corresponding quantity of opium may be made up into pills, with camphor, and given every half hour. As soon as the stomach is tranquillized grs. x. of carbonate of ammonia may be given in camphor julep, or an effervescing draught of citrate of ammonia, in which the carbonate is in excess, every half hour. The usual external stimulants should be resorted to. (*Med. Gaz.*)

Dr. Muller, of Russia, gives the following as the most successful treatment in the military hospitals, viz : As soon as the patient was in the stadium algidum, 12 cupping glasses were placed along the spine; the whole body was strongly rubbed with a mixture of pounded ice and salt (two parts ice to one part salt;) then the patient was enveloped in woollen coverings, and drank every hour a glass of water, with from one to two teaspoonsful of rock salt dissolved in it; and, according to circumstances, in addition, calomel was given with or without camphor. Stimulating remedies were employed with great moderation and care, and, at the least sign of reaction, immediately laid aside. If after these measures, warmth did not return in from one and a half to two hours, the frictions were repeated; once or twice generally sufficed, but occasionally they were repeated three or four times. Under this mode of treatment out of 432 severe cases, 287 recovered, the mortality being at the rate of 33.5 per cent. (*Brit. and For. Med. Rev.*)

Dr. Rogers.—Calomel in small doses is used by most practitioners, (first stage,) and the following formulæ are highly commended: Calomel; pulv. capsici, āā grs. iv.; opii gr. iss. or grs. ij. assafœtidæ grs. ij.; ol. menth. pip. m. j. To be repeated at intervals while purging continues, until eight or ten grains of opium have been taken. The combination of nitro muriatic acid and opium has been extensively tried, and with the best results, the dose being, acid. nitric. m. ij. acid. hydrochlor. m. i. tinct. opii, m. x. water ℥ i, to be repeated every hour, or hour and a half. When the second stage (collapse) has set in, but little can be expected from remedies internally administered. Internally, stimulants are worse than useless. External applications and enema being the chief remedies. (*Madras Reports.*)

Dr. Mackenzie, in speaking of the practice in this disease in Russia, says:—We have found *bleeding,* when practised early, of unequivocal advantage, especially in robust subjects; but in order to secure this advantage stimulants must be administered immediately afterwards, otherwise a relapse into the same stage of congestion is apt to follow. For this discovery we are indebted to the Anglo-Indian surgeons. Bleeding, practised later, when the vital energies were far reduced, was found of no avail whatever. *Emetics* of ipecacuanha were frequently given as a safe stimulant to effect a reaction and restore the blood to the surface; I have seen an emetic bring up food, though there had been vomiting and purging in a violent degree some hours previous to its administration. The *water and vapor bath* were used extensively, but I cannot say anything in their favor; if they restored in some measure the circulation, it was only for a short period, a collapse seemingly greater than before following their use. *Frictions of oily liniments* containing camphor, oil of turpentine, capsicum, &c. were found of more certain benefit, as also *sinapisms.* I have given this after bleeding, an emetic in a tumblerfull of French brandy with advantage. To restrain the violent watery purging, opium, sugar of lead, and ipecacuanha combined, in the proportion of one grain each, together with a quarter of a grain of camphor, act admirably. (*Med. Gaz. April 6th,* 1849.)

Analysis of the Blood in Cholera.—Dr. William Robertson read an account of his observations on the blood drawn from patients labouring under cholera. He groupe the cases under four heads, described the appearance and general properties of the blood in each, and exhibited the general chemical results obtained from thirty analyses, conducted according to Andral and Gavarrett's process. Five of the analyses were made by Dr. Douglas Maclagan, one by Dr. Christison, and the rest by Dr. Robertson.

Average Constitution of 1000 *parts of Cholera Blood.*

	Fibrine.	Org. Serous Solids.	Inor. Do.	Globules.	Total Solids	Water.	Sp. gr. of Serum.	Sp. gr. of blood
Early stage,	2.7	82.2	7.8	103.4	196.1	803.9	1030.0	1053.7
Early collapse	3.2	94.0	7.0	130.8	235.0	765.0	1033·7	1059.5
Collapse,	3.2	101.2	6.9	130.0	241.3	758.7	1036.6	1066.4
Reaction stage	3.5	76.6	6.6	126.7	213.4	786.6	1030.6	1057.9

Distinct indications of the presence of urea had been obtained both by Dr. D. Maclagan and by Dr. Robertson, upon testing blood taken from the heart and veins after death: and on one occasion Dr. Maclagan had obtained similar indications, upon examining blood drawn from the arm during the early stage of the disease. *Urea* seemed most abundant in the blood of patients who died during the stage of reaction; 1000 grains of blood yielding, in one case, 1.6, in another .73 of nitrate of urea. The chief conclusions which these analyses, coupled with certain phenomena of the disease, suggested, were, 1st, That anæmia, or an impoverished blood, acted as a predisposing cause of cholera. 2ndly, That although during cholera the relative proportions of the blood constituents was rapidly and singularly altered, there was yet no evidence that the primary operation of the morbific poison was exerted upon the circulating fluid ; the chemical changes recorded were only the *effects* of the morbid process. 3rdly, That the changes which the blood underwent up to the period of reaction, consisted in a concentration of the serum from loss of water, and a loss of salts almost proportionate to the amount of water abstracted. 4thly, That the *proportion* of salts was lower during reaction and convalescence than during the progress of the disease. For every 1000 parts of water, there existed during the *early stage* 9.7, during early collapse 9.2, during collapse 9.1, consequently the phenomena of the stage of collapse could not be due to the loss of salts, and that the saline treatment did not rest upon a good theoretical foundation. 5thly, That the changes observed during reaction were probably due, in part, to absorption of fluid into the circulation, and consequent dilution of the blood. This absorption sufficiently accounted for the small per centage of inorganic serous solids during reaction, and might assist in explaining the marked diminution of the organic serous solids. 6thly, That during reaction the fibrine was often proportionately increased, and that there was reason to believe that blood corpuscules were, at the same time, rapidly formed. 7thly, That the albumen, which was withdrawn from the circulation, was metamorphosed, converted into tissues excreted by the bowels, and in most cases likewise excreted by the kidneys. In nearly eighty per cent. of the urines examined during convalescence, albumen was detected ; its absence might, accordingly, be regarded as exceptional. 8thly, That the formation and retention of urea in the blood was always to be dreaded during reaction, and hence, that the use of diuretic remedies, and especially of such as were believed to possess the property of expelling urea from the system, was clearly indicated. Tabular statements of the analyses were exhibited.

Dr. Christison inquired if an experiment which he had made during the former epidemic, and which proved that the dark blood of cholera was yet quite susceptible of arterialisation, had been confirmed on this visit of the disease. He had found that the blood, when defibrinated by agitation in a phial with pieces of zinc, rapidly assumed the arterial hue when subsequently agitated with atmospheric air or with oxygen gas. Dr. Douglas Maclagan and Dr. William Robertson had both recently confirmed the accuracy of Dr. Christison's observations.

A conversation followed, chiefly regarding the effects of remedies during the recent epidemic. It was stated, that the saline injection of the veins had been practised in the cholera hospital in twenty-five or twenty-six cases, and that although remarkable temporary benefit seemed sometimes to result, no patient had survived the operation more than eight days. In 1832 about 1-6th of those whose veins were injected recovered; profound collapse was, however, not always waited for before recourse was had to the operation. The *diuretics* used on the present occasion were bitart.-potass, nitre, digitalis, colchicum, and tinct. lyttæ. Blood-letting practised early was the remedy which Dr. Robertson had found most efficacious in averting the most formidable symptoms of the disease.—*Prac. of Eding. Med. Chi. Soc.*

On the Analogy and Differences between Tubercle and Scrofula. By M. Legrand.—M. Legrand terminates an elaborate and valuable series of papers, abounding in illustrative cases; the fruit, he states, of several years' research, with the following positions:

"1. There undoubtedly exist analogies which we may call symptomatic, between tubercle and scrofula—that is to say, one of these two morbid principles; the tubercular may exhibit itself by symptoms which appear to belong to the other. It is not the case with regard to the latter. 2. Tubercle possesses, so to speak, its morbid individuality, its molecular element—the tubercular globule—which is often met with in the scrofulous manifestations of tubercle. 3. Scrofula is always deficient in the morbid molecular element, and its existence is only proved by the constancy of the effects which are attributed to it. 4. The chief, or even the only seat of tubercle, is in the internal organs, and the external manifestations of the morbid principle irradiate from the centre to the circumference. 5. Scrofula comports itself quite otherwise, and, manifesting itself on the skin or periosteum, irradiates thence towards the internal organs, which, however, it never disorganizes in the same manner as tubercle. 6. Tubercle, in spite of the impoverishment of the blood it always induces, does not destroy, at least in the early periods, the inflammatory element—the fibrine—which well explains the occurrence of the phlegmasiæ, which so often complicate it, and which always hasten its disorganizing progress. 7. Scrofula likewise impoverishes the blood, but, at the same time, it seems to annihilate the inflammatory element. Thus inflammations rarely complicate it; and when such complication does exist, it often favors the cure of the disease. 8. All the changes observed in the blood and urine of tuberculous and scrofulous patients are evidently consecutive; and they cannot be considered as the cause of these two diseases, whose principle is, nevertheless, very probably contained in the blood. 9. Tubercle is never curable, or, at least, such cure constitutes a rare exception, while scrofula is almost always curable."—*Revue Médicale.—Brit. and For. Med. Chir. Rev. for April.*

On Paracentesis in Acute Pleurisy. By M. Trousseau.—M. Trousseau has already published seven cases in which he has resorted to this operation, and more recently he has communicated two others to one of the Parisian Medical Societies. His cases belong to a variety of the disease which he thinks has not sufficiently excited the attention of pathologists. In these there would seem to be a moderate amount of inflammatory action, as indicated by fever, pain, or cough; and yet, in a very few days an enormous amount of effusion distends the pleura, and menaces life itself by the compression of important organs it induces. Of nine such cases, three in which no puncture was performed —died, the six operated upon recovering. These six patients could not, however, be regarded as being in a state of immediately imminent danger; and M. Trousseau does not regard the operation as a last resource, but believes we should resort to it at a sufficiently early period to prevent fatal accidents which possibly may occur; and refers to several fatal cases occurring in the practice of himself or others, in which, had the great effusion present been removed, the patients might have recovered. He employs a somewhat shorter trocar than is generally in use, having a stop to regulate the extent to which the blade is to be admitted, and provided with a valve of moistened leather, which prevents the admission of air after the withdrawal of the fluid. Before puncturing the parietes, also, he makes a small crescent-shaped incision into the integuments, and passes the trocar beneath its upper lip, so that, on withdrawing the canula the skin entirely covers the aperture. The puncture gives little pain, the lungs and heart resume their proper position, and free respiration is restored.—*L'Union Méd.*—*Brit. and For. Med. Chir. Rev. for April.*

On the Effects of Cauterization in the Inoculation of Animal Poison.—M. Parchappe addressed a communication to the Academy on the effects of cauterization in cases of poisonous and venomous inoculation. The experiments made by M. Renault, and communicated at a previous sitting of the Academy (vide Med. Gaz. No. 1100,) on the absorption of virus, have established the fact that cauterization is shown to be inefficacious in preventing the absorption of glanderous virus one hour after inoculation, and of scabby virus five minutes after inoculation. Fearing that these experiments might lead to a general inference that cauterization was ineffectual in other poisonous and venomous inoculations, M. Parchappe communicated a series of experiments made by him at a time when he paid considerable attention to the study of the different theories of absorption; experiments which led him to establish the efficacy of cauterization in the treatment of poisonous and venomous inoculations, and to claim for it a greater value even than had previously been accorded to it.—*Med. Gaz.*

SURGERY.

Cases of Gun-Shot Wounds.—By C. D. Gibb, M. D.—In our last number we presented the reader with the portion of the papers of Dr. Gibb, embracing the more important wounds of the head and neck; in the present are included those of the chest and abdomen. In our next we shall give those of the extremities.—*Ed. N. Y. Jour. Med.*

In continuation of the subject of gunshot wounds, I enclose the following cases, where the chest and abdomen were implicated; they are few in number, but will be found not devoid of interest, and I hope that they will prove acceptable to your readers.

From the immediate fatality frequently attendant upon wounds involving the great cavities of the body, a comparatively small number of them were to be seen in the hospital after the events of June. Of those who survived the primary effects of their injuries, a few were very speedily cured by the most active treatment, whilst, again, others, in the majority of whom the wounds involved the thoracic cavity with lodgment of the balls, are even now to be found; the issue of those cases is as yet doubtful; my notes of these latter are of course not yet completed, and I refrain, on this account, from forwarding them.

All of the cases which I now send have fallen under my personal observation, but the notes of four I have, as you will perceive, preferred extracting from the *Gazette Medicale.*

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20. Case of a soldier of the line, in the *Hotel Dieu*, where a musket ball penetrated the left arm, without fracturing the bone, and entered the chest, fracturing the left edge of the sternum near its middle, and remaining lodged in the anterior mediastinum. On inspiring freely, air bubbled out of the wound, with oozing of blood, and it was supposed, from this circumstance, that there was wound of the lung; the patient, however, never spat blood, but suffered from dyspnœa, cough, and symptoms of pleuritis, for which he was actively treated. Sloughing, to some extent, occurred around the wound, and the beating of the heart against its under surface was very plainly seen. Some weeks afterwards he was very weak, with hurried breathing, loose cough, and expectoration of frothy mucus; muco-crepitating rales were heard over the anterior surface of the right lung. On coughing, pus and air escaped out of the wound, which then looked healthy. On the sixty-second day an abscess from within pointed on the right side of the chest near the nipple; it was opened, and permitted of the extraction of the ball with perfect ease, since which time he has been progressing favorably. He now (8 Sept.) is gaining flesh and strength, sleeps well, has a good appetite, and his healthy colour is returning, his pulse is 90, and soft, and his respiration 24 in the minute.

21. Case in the *Hotel Dieu.* A ball had entered the left side of the chest, just below the clavicle, passing outwards near the inferior angle of the scapula; this was a most severe case, hemorrhage occurring from both wounds. accompanied with distressing cough and spitting of blood, the physical signs of pneumonia quickly presenting themselves. Although actively treated at the commence-

ment, this case lingered till the tenth week, when it terminated fatally.

22. Case of a woman in the *Hopital St. Louis*, who had received a wound from a ball which had entered just above the heart, remaining lodged in the cavity of the chest. She had spitting of blood, &c., was bled eight times, and in 15 days after she was discharged cured.—*Gaz. Med.*

23. Case of a man in *St. Louis*, wounded by a ball which had penetrated the cavity of the chest, behind the clavicle, passing in an oblique direction from above, downwards towards the middle of the scapula, which it had fractured. The fact of penetration was indicated by the spitting of blood, by the dullness on the same side of the chest, and even, said the surgeon, by the existence of pneumo-thorax. This patient was bled seven times, and, when last seen his cure was considered complete —*Gaz. Med.*

24. Case of a lieutenant of the Garde Mobile, also in *St. Louis*, who had been wounded by a ball which entered the chest near the scapula: he had, immediately after, spitting of blood, which continued for several days. He was bled seven times, when, finding himself sufficiently well, he went into the gardens of the hospital to smoke a cigar. Scarcely had he committed this foolish act, when he was seized with dyspnœa and spitting of blood. A fresh bleeding proved sufficient to restore him completely, and permit of his departure from the hospital.

25. Case of a Garde Mobile, aged 19, in the *Hotel Dieu.* A ball had entered his chest, above the left clavicle, and passed out in the scapular region, fracturing the bone in its course. The patient spat blood in great abundance; he was bled five times; the splinters of the fractured scapula were extracted; he was purged once, and was discharged from the hospital after a stay of only 20 days.—*Gaz. Med.*

26. Case of a young Garde Mobile, who was wounded in the *Clos St. Lazare*, the ball entering near the vertebral column, a little below the scapula, traversing the convexity of the side of the chest, and becoming lodged near the sternum, appearing as if the chest had been penetrated. In this case, the dyspnœa, the distress of the patient, together with the presence of the ball at a point opposed to that of its entrance, naturally led to the supposition of penetration. The ball was extracted shortly after, and the case did well.

27. Case in *St. Louis*, where a ball had entered the external surface of the left arm, three inches below the shoulders, passing behind the humerus and in front of the scapula, making its exit near the spine. Extensive suppuration followed, requiring numerous openings to let out matter, and the patient was quite cured in the early part of August.

28. Case also in *St. Louis*, where a ball had entered the left side of fifth dorsal vertebra, becoming deeply lodged in its substance, and closing well without suppuration, or any bad effects whatever.

29. Case in *La Charité*, of a soldier of the line. A ball had entered near the shoulder, between the scapula and clavicle, and remaining lodged. Great suppuration followed, requiring openings at the inferior angle of the scapula, the anterior surface of the shoulder, and other places; from the two former protruded large flabby granulations. The wound, on 26th July, extended downwards over the whole of the anterior surface of the scapula; it was probed, and there were withdrawn portions of the fringe of his epaulette and pieces of his coat and shirt. From that time the wounds began to close, and were healed by the 17th September, the ball still remaining lodged. He could not then raise his arm, but could move it backwards and forwards.

30. Case in the *Val de Grace*, of a soldier of the line, who had received a wound in the *abdomen*, the ball entering in the epigastric region, wounding the left lobe of the liver, and passing out over the anterior surfaces of the left inferior ribs, crossing them to its course, which was slightly circuitous; the wound produced an hepatic fistula, with the escape of bile and blood, *noir comme de laudanum ;* he had the symptoms of local peritonitis, which were speedily dissipated. The inflammation, however, was sufficient to produce adhesion between the wounded surface of the liver and the peritoneum, closing the fistula, and merely leaving the open wounds of entrance and exit, which after some weeks had perfectly healed, and the soldier was discharged cured.

Another equally interesting case, where the liver was wounded, followed by a perfect cure, occurred in the same hospital, but I have been unable to procure the notes of it.

31. Case in the *Hospital St. Antoine*, of wound of the abdomen, where the ball had entered the superior part of left iliac region, wounding the intestines. Peritonitis supervened, which, however, yielded to treatment; and the result of the case was, the formation of a fistula communicating with the small intestine, from which escaped, at times, fœcal matter, together with a dark greenish fluid, resembling bile.

32. Case, in the *Val de Grace*, of a soldier of the line, who received a wound from a ball which penetrated the left side of the abdomen, remaining lodged in its cavity; there did not appear to be a communication between the opening and any wounded intestine; symptoms of peritonitis quickly showed themselves, but were overcome by active treatment, as in the former case, and the patient, when last seen, was progressing favorably, but the wound had not closed.

33. Case, in *La Charité*, of an officer, who had received a wound in the anterior part of the right side of the abdomen, from a ball, which had passed out behind, to the left of the vertebral column; all of the signs were such as to lead to the belief that it had traversed the abdominal cavity. No symptoms of peritonitis followed, and after he had recovered from the primary effects of the shock he appeared to be about to attain a speedy cure, when an unfortunate

accident, a phlebitis falling upon venesection, caused him to succumb, and furnished an opportunity of ascertaining the real tract of the projectile.

Autopsy.—The ball, after having traversed the integuments of the abdomen, as the pain indicated, was immediately directed from its course—probably by the influence of muscular contraction—and glided along between the skin and the musculo-aponeurotic layer, as far as the spine, where it had become divided into two fragments of unequal size, the larger of which, after passing *over* the spinous processes, had escaped through the opening to the left of the vertebral column.—*Gaz. Med.*

34. Case of a man, in *La Charité*, who had received a shot on the right side of the abdomen, the ball having passed out on the left at a corresponding point; peritonitis supervened on the second day. Every one believed that the ball had passed completely through the abdominal cavity, but under the influence of general blood-letting, and of the free application of leeches and emollient poultices, the inflammatory symptoms were dissipated as if by enchantment, and it was soon perceived that the wound merely concerned the integuments.

35. Case in the *Hotel Dieu*, where a ball had entered over the lower ribs of left side, traversing the integuments, and escaping just above the anterior superior spinous process of the ilium. Discharged well in August.

36. Case in the *Hotel Dieu*, where a ball had entered midway between the anterior superior spinous process of the ilium, and the trochanter major of right side, making its exit at the very margin of the anus; no bad effects followed, and the man was discharged well in August.

37. Case in *St. Louis*, where a ball had entered the left groin, traversing the perineum, and escaping behind the trochanter major of the right femur; suppuration, to some extent, followed, but the cure was nearly complete by the middle of August.

38. Case in the *Hotel Dieu*, where a ball had entered in the upper part of the umbilical region, taking a course obliquely downwards and outwards, and making its exit an inch above the crest of the ilium, having traversed the integuments. The patient was well by the end of July.—*Brit. Amer. Jour. Med. Sci.*

Morbid Growths and their Extirpation.—Mr. Hunt, in the Provincial Medical and Surgical Journal, May 2d, sums up an interesting paper on this subject, with the following conclusion:

"The extirpation of morbid growths may be said to be *indicated* (their position being convenient for operation,)—1. Wherever the disease is clearly the result of local or mechanical irritation from some external source. 2. Whenever the tumor is neither painful, tender, nor progressive, the health being good. 3. Whenever it can be fairly demonstrated that the pain or irritation of the tumor, being the primary and sole cause of disturbed health, its removal will be the least of two evils. 4. A tumor in the mamma, originally depending on disordered health, may, *after the health is restored*, become painful from the pressure of the dress, and thus the absorbent glands may be excited and the uterine functions disturbed. Excision may be justifiable in such a case; but the proper time must be chosen, and great attention should be paid to the health subsequently.

"The extirpation of morbid growths may be said to be *contra-indicated*,—1. When failing health precedes or accompanies the appearance of local disease. 2. When the disease is advancing, the tumor sensibly growing, no local or mechanical cause of irritation being apparent. In this case it is right to assume the existence of latent constitutional disease, and to treat the case medically rather than surgically. 3. When there is a plurality of tumors. 4. When the disease re-appears, whether soon or late after an operation for its removal."

Removal of the Os Calcis. By Mr. Hancock.—At a meeting of the Westminster Medical Society, held January 6, Mr. Hancock related a case of caries of the os calcis, where he operated by removing that bone.

R. W. aged twenty-four, a butcher by trade, and of scrofulous diathesis, was admitted into the Charing Cross Hospital under Mr. Hancock's care, on the 23d May, 1848. He was suffering from caries of the os calcis of the right foot, with abscess; the bone was rough, but not loose. As his other leg had been removed two or three years before, for scrofulous affection of the knee-joint, Mr. H. was anxious to preserve as much of the remaining foot as possible; and as the os calcis seemed the only bone affected, he determined to confine his operation to it alone. Accordingly, on the 2d of June, the patient being under the influence of chloroform, Mr. H. assisted by Messrs. Avery and Canton, removed the bone, by carrying an incision from the posterior angles of the inner malleolus, across the sole of the foot, to the external malleolus, the convexity of the flap looking forwards. The flap thus made was carefully reflected, the tendo achillis divided, and the knife being carried from behind forwards, between the astragalus and the os calcis, the latter was dissected out without any difficulty. Two or three vessels were tied, and the flap brought over; the edges were united by sutures and strapping. All went on very well until the 6th, when erysipelas came on, along with severe constitutional disturbance. On the 9th a large portion of the flap sloughed; and it eventually came away. On the 16th only sufficient skin remained to cover the bones completely. The patient continued to improve until the middle of July, when he was again attacked with erysipelas; several abscesses formed both in the foot, above and below the wound, and in the leg and ham; his strength gave way, and he became very low and weak, and it was very evident that there was very little probability of the limb being saved; but Mr. H. being anxious to give him every chance, determined to try the effect of the protein, so highly recommended by Mr. Tuson; this was accordingly given in doses of fifteen, afterwards increased to twenty grains thrice daily. His general health improved, but the foot did not mend; and at length constitutional symptoms returning, and further delay appearing dangerous, Mr. Hancock removed the leg, at about five inches below the knee, on the 6th October—four months after the former operation.—*Lon. Med. Gaz. Jan.* 19, 1849.

Excission of the Head of the Femur. By Mr. H. Smith.—Mr. Smith gives a detailed account of a case of spontaneous luxation of the femur, the result of disease of the hip-joint, in which he performed the operation of excision of the head of that bone, having, after careful examination and consultation with Mr. Ferguson, and several other surgeons, formed the opinion that the disease was entirely confined to the femur. Little difficulty seems to have been encountered in the performance of the operation, owing to the superficial position of the bone upon the dorsum ilii. The case went on favorably for some time, but unsatisfactory symptons afterwards appeared, the wound continued to discharge unhealthy matter; the patient gradually became more and more exhausted, and died about three months and a half after the operation. On examination after death, extensive disease was found to exist, both in the ilium and in the lumbar vertebræ.—*Lancet, Dec.* 1848.

[This case affords an example of the extreme difficulty of determining to what extent the bones are affected in hip-diseases; the absence of any symptoms indicating disease of the pelvis or vertebræ, having very naturally led to the conclusion that the head of the femur was alone affected. We are only aware of three cases being on record, in which a similar operation has been performed with success; one by White, in 1818; another by Professor Textor, of Wurzburg, in 1845; and the third by Ferguson, in the same year.]—*Month. Jour. Med. Sci.*

MIDWIFERY.

Tapping for Dropsy of the Amnion. By Mr. Lawrence.—The following is an abridgment by Mr. Lawrence, from his note-book, of a twin case in which abortion took place, and in which there was a great excess of liquor amnii:—

"Mrs. —— is four months gone in third pregnancy. At the end of the second month she seemed larger than in due proportion to the period of pregnancy, but there was no abdominal pain, and the general health was good. The only peculiarity was, that the sickness incident to her state was much more severe than in either of her former pregnancies. About six weeks ago (between the second and third month) she began to experience frequent pain in right lumbar and umbilical regions, which still persists. Her size, since the occurrence of the pain, has been rapidly increasing, and now she presents the appearance of a woman at the full period of utero-gestation. Fluctuation is well marked over the whole abdomen. Diagnosis, 'Pregnancy with ascites.' With the view of removing the latter, she was placed under the usual treatment, and, failing to derive any benefit from it, after eight or ten days I met a medical friend in consultation on the case. He concurred in the diagnosis, and in the pending necessity for the performance of paracentesis. This operation was accordingly performed on Saturday at mid-day, and about six pounds of straw colored fluid were withdrawn. The stream through the canula was never full, and never clear, being always more or less tinged with blood; frequently it was altogether interrupted by a substance which felt soft and spongy when turned aside by the probe, and from which hemorrhage to the amount of five or six ounces proceeded. For some time before the canula was withdrawn, only blood flowed through it. The hemorrhage having ceased, the canula was withdrawn and the wound closed. The size of the abdomen was not one half reduced by the operation.

"*Second day.* Passed a good night; but, between eight and nine this morning, after a little exertion moving round in bed, there was slight hemorrhage per vaginam, followed by rigor and quick pulse, but no abdominal pain. At five P. M. I was summoned suddenly to the patient. About an hour previous, while turning in bed, the membranes burst, and an immense quantity of water was discharged. The bed was literally flooded. In half an hour after this discharge labor pains came on, and ere I arrived two female fœtuses were expelled, and the half of a double placenta. I delivered the remainder. The quantity of blood lost was trifling. The fœtuses seemed to have been between the fourth and fifth month, and the membranes were of very great size. The uterus was quite contracted, and the abdomen now reduced to its natural dimensions. There was a little febrile excitement for a few days after this; but subsequently the case progressed favorably, excepting that suppuration in one of the mammæ retarded recovery for a time.

"A case very similar to the above is recorded by Desmerais, and quoted by Dr. Davis, wherein the same error of diagnosis was committed, and the same treatment pursued. Twenty-one days, however, elapsed between the tapping and the occurrence of labor, whereas in the above case the interval was only about twenty-eight hours. Desmerais' case, like my own, was one of twins, and so also was that of M. Devilliers."—See *Dr. Davis's Obstetric Medicine. Month. Retros.*

Treatment of Uterine Catarrh by Intra-uterine Injection. By M. Strohl.—The practice of injecting liquids and unguents of various kinds into the cavity of the uterus has frequently been proposed and had recourse to, but the beneficial effects of this mode of treatment, when properly pursued, have never been fully appreciated. The rules which M. Strohl lays down are, *firstly*, to inject only a small quantity of the liquid, and, *secondly*, to provide that the canula through which it is injected be so small as not completely to close the os uteri, but allow the liquid to flow back out of the womb, after its cavity is filled. By attending to these rules the danger pointed out by M. Lisfranc, of pushing the liquid through the Fallopian tubes and into the peritoneal cavity, will be altogether avoided.

The injections may be of very various composition. M. Strohl frequently uses a weak solution of the ioduret of iron. The operation of injecting may be repeated every day, or, better, every third or fourth day; and they must be laid aside some days before the appearance of the catamenia. In cases complicated with acute or subacute metritis, the injections cannot be safely tried. M. Strohl believes that induration and excoriation of the uterine neck are often caused or kept up by the uterine discharge, and that in these cases the uterine injections are indicated.—*Month. Retros. from Gazette de Strasbourg*, 1848.

Case of Hydrometra occurring in an Unimpregnated Uterus.—By Dr. Grandidier. This case occurred in the person of D. F. ætat. 21, unmarried, and of a scrofulous habit of body. In November, 1842, her menses—which had been very irregular—were arrested, and the belly began to swell, so that, in twelve weeks, it resembled that of a pregnant woman in her last months. The distension was as equable as in ascites, but a fluctuation was only very obscurely felt. The extremities were swollen, respiration hurried, and the amount of the urine small. Examination, *per vaginam*, having proved the groundlessness of the charge of pregnancy, she was treated by various hydragogues, &c. as for ordinary ascites; and it was not until paracentesis had been in vain attempted, that hydrometra was diagonized. Ten grains of *secale cornutum* were now ordered every two hours, until uterine action was developed. Great pain and anguish was thus produced, which continued for twenty-four hours, when (120 grains of *secale* having been taken) a small plug of mucous was expelled from the vagina and followed by the uninterrupted flow of 6 *maas* (64 oz.) of a clear watery fluid. The patient's sufferings were much relieved—her general condition improved—and, while taking Stahl's pills, her menses returned. Still, her belly never resumed completely its normal size, and at intervals, varying from one to three weeks, there were gradually expelled other 18 maas of the same fluid. In June, 1843, she repaired to the sulphureous waters at Nenndorf, the belly being as large as in advanced pregnancy; and the menses again disappearing, 10 maas of fluid were discharged from the vagina. In August, 7 maas, and in September, 39 were discharged; but after this period, the mineral waters and other means employed having removed the deranged condition of the digestive organs under which she had long labored, the discharge of water, *per vaginum*—which had probably accumulated during the statis of the venous abdominal circulation—entirely ceased.—*Brit. and For. Med. Chir. Rev. from Neue Zeitschrift für Geburtskunde.*

The following Table exhibits the principal results of the Dublin Lying-in Hospital, from its foundation in 1757, to the end of the year 1847, under each particular master; being extended over a period of 90 years. The table is reduced from the published abstract, with three additional columns, showing the fœtal, infantile, and maternal mortality. By CHARLES CLAY, M. D. Manchester, Editor of *The British Record of Obstetric Medicine and Surgery, &c.*

Name of Master.	Women delivered	Boys Born.	Girls Born.	Total Born.	Twin cases.	Triplet cases.	Quadruple cases.	Children Died.	Children still born.	Total Deaths Children.	Women died.	Deaths per cent. on Children* bor.	Deaths per cent on women delivered.	Twins per cent. on deliveries.
Dr. Moss,	915	513	424	937	21	1	0	155	46	201	14	22	1½	2⅓
Dr. Ould,	3,800	2,035	1,819	3.854	54	0	0	708	197	915	49	24	1⅓	1½
Dr. Cullum,	4,724	2,562	2,238	4,800	76	0	0	892	258	1,150	65	24	1¾	1½
Dr. Jebb,	5,903	3,116	2,891	6,007	103	1	0	921	269	1,190	63	20	1½	1¾
Dr. Rock,	7,088	3,849	3,365	7,214	124	2	0	553	411	964	54	13½	¾	1¾
Dr. Clarke,	10,787	5,629	5,244	10,873	170	3	1	421	580	1,001	124	10½	1 1-7	1½
Dr. Evory,	11,357	6,066	5,527	11,593	228	8	0	401	600	1,001	86	11½	1⅓	2
Dr. Kelly,	14,790	7,789	7,271	15,060	264	4	0	336	974	1,310	163	8¾	1 1-10	1½
Dr. Hopkins,	18,727	9,951	9,100	19,051	323	2	0	403	1,063	1,466	217	7⅔	1 1-6	1¾
Dr. Labatt,	21,867	11,546	10,605	22,151	281	3	0	399	1,535	1,934	309	8⅔	1½	1¼
Dr. Pentland,	12,885	6,746	6,298	13,044	159	1	0	154	827	981	198	7½	1½	1¼
Dr. Collins,	16,391	8,498	8,144	16,642	241	4	0	157	1,017	1,174	158	7	15-16	1½
Dr. Kennedy,	13,167	6,776	6,547	13,323	156	1	0	79	651	730	224	5½	1⅔	1⅓
Dr. Johnson,	13,699	7,191	6,695	13,886	187	2	0	154	863	1,017	179	7¼	1⅓	1⅓
Total.	156,100	82,267	76,169	158,436	2,400	32	1	5,704	8,291	13,995	1,903	8 1-6	1¼	1½

This table possesses considerable interest and value, inasmuch as it shows, at a single glance, some of the most important results of obstetric practice. It has been condensed from the original, and, notwithstanding the addition of three columns embracing the fœtal, infantile, and maternal mortality, occupies much less space. This table proves the preponderance of male to female births to be as 12 to 11; it also proves, that for the first half period of the Hospital's existence, viz. from the foundation to the year 1800, infantile deaths were more numerous than still born cases; whilst for the latter half period, viz. to the year 1847, the still-born cases greatly exceeded the infantile deaths. This may be attributed to the improvement in the treatment of infantile diseases, and to the excellent mode of ventilation proposed by Dr. Josh. Clarke. The per centages which are not so dependent upon the exercise of professional skill, present an almost undeviating uniformity. We could have wished that the original report had included other results which are of considerable interest and importance to the obstetrician; but as it appears, it will prove of great utility.

* The per centage of deaths of children includes, of course, the still born.

On Inflammation of the Umbilical Cord in Infants.—By M. Mildner, of Prague. The separation of the remains of the cord after birth takes place either by a dry or moist gangrene. In both cases, a certain degree of inflammatory action accompanies the separation. In the first form, which is the most common in healthy and vigorous children, the inflammation is of limited extent and suppurative. In the latter, there is left, after separation of the dead portion, an ulcerated depression, in which a conical projection shows the situation of the occluded vessels; and this ulceration may extend down to the peritoneum. In these cases—which almost always occur in the ill-nourished children of diseased mothers, and especially during epidemics of puerperal fever—inflammation of the umbilical vessels of the peritoneum, with purulent infection, are very apt to occur. Purulent infection is denoted by the sudden accession of fever, with pungent heat of skin, dry tongue, thirst, dyspnœa, tumultuous action of the heart, constipation and general convulsions. The most certain sign, however, is the formation of metastatic abscesses, which, in infants, take place much more frequently in the skin and joints than in adults. The inflammation usually attacks several joints at once; in its consequences it is not dissimilar from simple inflammations, which, however, are rare in the joints of the infant, except as the consequence of injury or strain during birth. Metastatic inflammations of internal organs differ little from those of the adult; lobular pneumonia (mostly with pleurisy) and purulent infiltration of the mediastinum, with abscess of the thymus gland, are not uncommon. Hemorrhage from the umbilicus occasionally occurs in purulent infection. Convulsions occurred in five out of forty-eight cases of inflammation of the umbilical cord. In two cases they were due to universal purulent arachnitis; in one to an extravasation on the duramater; in the others they were probably reflex. The convulsions were always general, but were strongly marked in the muscles of the face.—*Monthly Journal and Retrospect*, from *Präger Vierteljahrschrift*, Jahrgang V. Band ii. and *Œster.—Med. Wochenchrift*, 15th April, 1848.

MATERIA MEDICA AND THERAPEUTICS.

On the Employment of Iodide of Potassium in Saturnine and Mercurial Affections. MM. Guillot and Melsens have recently presented a Memoir to the Académie des Sciences, detailing an experimental investigation they have undertaken respecting the powers of iodine in lead and mercurial saturation of the system. The object in view is to render soluble the metallic compounds which have entered the economy, by associating them with a body of very easy elimination. All the insoluble compounds, formed by the salts of mercury with the matters met with in the economy, are soluble in iodide of potassium, which substance is easily and rapidly got rid of by the economy. By analogy we may infer, that the compounds of lead retained in the economy are also very probably dissolved and eliminated in the same manner; and in the memoir, cases of saturnine affections so cured are given. Sulphuric acid, or the sulphates, cannot be regarded as curative agents in the chronic diseases due to the employment of lead, seeing that sulphate of lead is itself a poison, capable of killing animals in a few weeks. If, however, we give to the animal sulphate of zinc and iodide of potassium simultaneously, no injurious effect results. If, nevertheless, we suddenly give a large dose of the iodide to a dog already suffering from disease from lead poisoning, it is speedily killed; while, if we give it in small and gradually increased doses, the animal gets rapidly well.—*Brit. and For. Med. Chir. Rev. from Gazette Médicale.*

On Cannabine.—By M. Dorvault. Cannabine is generally seen as an amorphous substance, of a brown color in the mass, and greenish in its lamellæ. Heated on platina it liquifies, takes fire, and burns without residue. It has an aromatic and nauseous odor, and a peppery, acrid taste. It is insoluble in water, and hence the impropriety of decoction or infusion of Indian hemp; but is soluble in alcohol, ether, fats and oils. It was employed by Dr. Willemin in treating cholera at Cairo, and affords a good means of exactly apportioning the dose of Indian hemp, the different preparations of this containing the active principle in very various proportions. It may be given in the form of pills or tincture. The latter is formed by dissolving one part in nine of alcohol, and filtering at the end of some hours; one gramme of this contains ten centigrammes (2-5ths of a grain) of cannabine, which is the dose employed by Dr. Willemin in cholera. It may be given in infusion of tea or chamomile, and its action is assured by taking a cup of coffee at the same time, or soon after. The form of pill is, however, preferable; as the water to which the tincture of cannabine is added, owing to the insolubility of this, becomes turbid.—*Brit. and For. Med. Chir. Rev.* from *Rev. Méd. Chir.*

On the Hæmostatic Properties of Cotton, by M. Bourdin.—M. Bourdin states that he has long availed himself of the hæmostatic properties of this substance, and relates some of the cases in which it appears to have been very efficacious—as epistaxis, hemorrhage from varicose veins, opening the temporal artery by caustic, &c. It is of no avail in hemorrhage from arteries of large calibre. The wound must be very carefully sponged, and the cotton exactly applied, by successive fragments, and moderate pressure maintained over it for several minutes. If the first attempts prove unsuccessful, the cotton should be entirely removed, and a new piece applied. When successful, it adheres to the part with great force, although sometimes a sero-sanguinolent fluid still, for a while, oozes out, on account of which the cotton need not be removed. The cotton becomes as hard, and as difficult to cut, as thick pasteboard, resists the action of water, and can only be removed at the expiration of several days, when loosened by suppuration.—*Brit. and For. Med. Chir. Rev.* from *Review Médicale.*

On the Treatment of Angina Tonsillaris, by minute Doses of Calomel.—By M. RENE-VANOYE. A practice has sprung up in France of treating certain inflammatory affections by small doses of calomel, which seems deserving of trial in our over-dosing country. M. René-Vanoye, in the present paper, speaks very highly of the efficacy of one-grain doses, given twice a-day, in acute *angina tonsillaris*, and which, if commenced prior to the formation of matter, induce resolution far more rapidly than is effected, if effected at all, by the ordinary measures.—*Ibid.*

On the Treatment of Asphyxia of Confluent Variola, by DR. HERPIN.—DR. HERPIN observes that, in most cases of small-pox which have produced death, independently of complications, no other changes are found than traces of the eruption at the upper portion of the respiratory passages. So persons who have watched these cases are aware, that, after having manifested a raucous voice and cough, and then aphonia, they die with all the signs of suffocation. These remarks, made by several observers, have not yet sufficiently excited attention as to the means of prevention of the consequence by the removal of the cause. The indication is very similar to that furnished by croup; the eruption in this case, however, having less tendency to affect the divisions of the bronchial tree than have the pseudo-membranes of croup; nor do the softened *débris* of the epithelium present the same tenacity or adherence, or the same tendency to reproduction.

The affection, indeed, should be combated before it reaches the extreme point, when it renders swallowing difficult or impossible; and the author refers to a case in which he successfully resorted to cauterization by the nitrate of silver. In other cases, exciting vomiting, by the tartar emetic, forms an excellent method; and he suggests that Kermes mineral, or sulphuret of potass, might be useful in the less urgent cases.

An interesting case was the immediate cause of the publication of these remarks. A man—ætat 28—having complete vaccine scars on his arm, took the small-pox in its most virulent form—it becoming very confluent. By the eighth day, when the suppuration had attained its maximum, the breathing became excessively embarrassed, (though the respiratory organs exhibited nothing anormal,) and deglutition very difficult. The patient lay exceedingly prostrated and somnolent. Tartar-emetic got down with difficulty, but soon produced cough and expectoration, and then vomiting, followed by amendment; so that a few doses removed all impending danger. Desquamation did not occur until the sixteenth day.—*Brit. and For. Med. Chir. Rev.* from *Gazette Médicale.*

MISCELLANEA.

New Sign that a Child has been Born Alive.—Dr. Virchow has announced that the presence of uric acid in the kidney, which may be detected with the naked eye, is conclusive of a child being born alive. His conclusions are—

1. That uric acid deposit is never found in children born dead, or who have died within forty-eight hours after birth.

2. That the deposit does not occur before forty-eight hours after birth.

3. That it is not generally found later than the twentieth day after birth.—*Medical Times*, Jan. 20th.

Statistics of the Hospitals and the Medical Profession in Paris.—The administration of the Parisian hospitals employs 2500 individuals, and possesses a budget of from fifteen to sixteen million francs. There are fifteen hospitals, furnishing 7174 beds, and receiving 90,000 patients per annum. Besides these, there are 4 large hospices, and 7 retreats for 8000 aged and infirm persons. More than 100,000 receive *secours à domicile ;* and above 25,000 foundlings are provided for. The following are the names, and number of beds of the various hospitals :

GENERAL HOSPITALS.	
Hôtel-Dieu .	810 beds.
St. Marguerite .	300 "
La Pitié . .	621 "
La Carité . .	494 "
St. Antoine . .	320 "
Necker . .	329 "
Cochin . .	325 "
Beaujon . .	438 "
Bon Secours .	334 "
De la République	600 "

SPECIAL HOSPITALS.	
St. Louis . . .	825 beds.
Du Midi . . .	300 "
De l'Orsine . . .	300 "
Enfans Trouvés . .	600 "
Maison d'Accouchement	514 "
Maison des Cliniques	120 "
Maison de Santé St. Denis	150 "

A year or two since some of the Parisian medical journals, alarmed at the constant increase of the number of the profession, called aloud for some legislative means of repression. The number of qualified doctors of medicine steadily increased from 1090 in 1833, to 1442 in 1847 ; added to which, there were, in this last year, 175 of the lower qualified practitioners, termed *officiers de santé*, giving 1617 legalized practitioners for little more than a million souls ; (including hospitals, garrison, and other unremunerating bodies :) while in London we had, at the same period, but 2500 regular practitioners for our two millions. Moreover, the midwives are, in Paris, a numerous body, (480 in 1847,) absorbing much remunerative practice, which, in London falls to the practitioner. Then, again, classes of persons there resort to hospitals who here pay for their attendance. If the remaining patients had been equally divided among the 1617 regular practitioners, it was calculated that 150 per annum would fall to each,—the charge for visits being 5, 3, 2, francs, or even less ; and no bad debts being recoverable at the expiration of a year. One of the effects of the revolution has been, to produce at least a considerable temporary diminution of the numbers. Thus, at the commencement of the present year, there were but 1389, instead of 1442 doctors: the whole number of qualified practitioners diminishing from 1617 to 1555, and that of midwives, from 480 in 1847, to 385. The *pharmaciens* are the only proportion of the body-medical who have held their ground, their numbers being 345 in 1847, and 363 in 1849.

Mortality. Of the 1423 doctors at the commencement of 1843, there died 37 during 1843-4: of the 1430 in 1845, there did 50 during 1845-6: and of the 1442 in 1847, there died 56 during 1847-8.—*Rev. Méd.-Chir.*

On Influenza and Ozone.—By Dr. Spengler, of Elville.—Dr. Spengler remarks, on the incomplete state of our knowledge of the etiology of epidemic diseases, that the present crude theories of their dependence upon certain indefinite degrees of heat or cold in the weather will no longer be admitted; but that, by following up the discovery of ozone by Schönbein, we shall, having a tangible point whence to start, arrive at the clearness of truth, instead of the darkness which has hitherto hung over the subject.

He states, that in the village of Roggendorf, in Mecklenburgh towards the close of 1846, slight catarrhal affections became prevalent, that but slight trace of ozone was then to be detected in the air. With the opening of the following year, however, these catarrhal affections assumed the severest forms of tracheal and bronchial disease, and hooping-cough became common, both among children and adults; then re-agents detected a great increase of ozone in the atmosphere, and, at the same time, influenza spread over the district. On the 9th January the *ozonometer* showed a still further increase in the proportion of ozone present in the air. On the same day two persons died of influenza, and gradually the influenza spread more extensively, until on the 21st scarcely an individual had escaped. Thus there seemed a decided connection between the presence of ozone in the air and the spread of the epidemic.

Ozone is formed in the air by the decomposition of its water through disturbances of its electrical equilibrium: hence the peculiar pungent sulphurous and phosphoric odour. The nature and composition remains as yet uncertain. Sulphuric, probably also telluric and selenic acids, and phosphoric acid, destroy it. A very small proportion of the vapors of ether or alcohol, or of olefiant gas, will also prevent its development.

Its best test is iodide of potassium, which will detect its presence in infinitely small quantities in the air. A piece of paper moistened with a mixture of starch and solution of iodide of potassium forms an *ozonometer* far exceeding in delicacy the most accurate galvanometer or the most sensitive nose. The smallest quantity of free ozone (even only in the proportion of a hundred-thousandth) when neither galvanometer nor eudiometer show any change in the air, will be rendered manifest by the discoloration produced by the free iodine.

At the begining of the epidemic we have noticed there was but slight discoloration; it gradually became darker, till at last the ozonometer exhibited a blackish-brown color.

As the presence of ozone in the air is due to its electrical decomposition, it is necessarily influenced by its electrical tension.

If the prevalence of influenza and epidemic catarrh be owing to ozone, the vapors of sulphur, or sulphurous gases, must be protective against it. This is confirmed by (while it explains the immunity of) those engaged in or living near sulphur-works.

Dr. Spengler has been induced to publish his observations with the hope of inducing others to make further investigations into the existence and nature of ozone.—*Med. Gaz. from Henle's Zeitschrift.*

Chloride of Olefiant Gas as an Anæsthetic.—Mr. NUNNELEY, of Leeds, proposes the chloride of olefiant gas. (Dutch liquid, chloride of acetyle,) as possessing all the good qualities of chloroform, and as being the least irritating of any anæsthetic agent which he has tried. He says that he has tried it upon many dogs and rats, young and old, in large and small doses; in no one instance has he seen any irritation caused by it, nor any repugnance to its inhalation. The animal quickly and pleasantly passes into a profound state of insensibility, and remains so. He states, that a more death-like condition is recovered from than after chloroform, and in every instance the animals have quickly rallied and remained well, except in one where he intentionally destroyed it to observe the *post-mortem* appearances. Having ascertained the effects upon animals, he inhaled it himself, and found the action not only not disagreeable, but perfectly agreeable in every respect. His assistant, Mr. Beaumont, has taken it once, and his pupil, Mr. Morham, has taken it twice, on two successive evenings; both were rendered as insensible as is either necessary or safe for the performance of any operation whatever, or by whatever agent induced. In neither was there the least irritation; in fact both begged for more before becoming insensible, and when rallying from this condition, and both were immediately well. Tne latter of the two, who has three times inhaled chloroform, declares the effect of the Dutch oil, both at the time of inhaling and subsequently, to be far more pleasant than that of chloroform. He gave the Dutch oil to four gentlemen: in all it answered admirably, all had previously taken chloroform, and they were unanimous in declaring the oil to be more effectual, pleasant, and speedy, with less uncomfortable feelings afterwards.—*Prov. Med. and Surg. Journ.*

OBITUARY.

Death of Professor Blandin.—We have to record the death of M. Blandin, at the age of fifty, which took place on the 17th inst. The immediate cause of death was an attack of cholerine, but he had been suffering for some months from chronic disease, the nature of which is not mentioned. M. Blandin was born at Aubigny, department of the Cher, in December, 1798, where his father held a government appointment. At the age of seventeen he proceeded to Paris to commence the study of medicine. He had no friends, and his means were very small. But in Paris, with its excellent concours, these are not insuperable obstacles to the advancement of talent. From 1819 to 1841, amidst many defeats, M. Blandin was appointed successively Interne Protector of the Faculty of Medicine, Hospital Surgeon, Professor Agrégé, and lastly, Professor of Operative Surgery, in which chair he was a worthy successor to Richérand and Dupuytren. He was ardently devoted to his profession, and his untiring industry ceased only with his life. The concours has been accused of so exhausting those who appear in its arena, that the moment success crowns their labors they cease to work; but the life of Professor Blandin, as well as that of most of the professors in the French schools of medicine, is a sufficient refutation of this statement.

As an author, M. Blandin is most favorably known by his Memoirs on phlebitis, angeioleucitis, partial amputation of the foot, extirpation of the metacarpal and metatarsal bones, and on autoplasty, of which he was a most zealous advocate. He also contributed numerous articles, in different departments of surgery, to the Dictionnaire de Médecine; and was the author of several works on descriptive and surgical anatomy. In his death, the Parisian school of medicine has sustained a loss which it will be difficult to supply.—*Month. Jour. and Retros.*

Death of Dr. Prichard.—Died on the 22d of December last, in London, Dr. J. C. Prichard, in the sixty-third year of his age.

Dr. Prichard, we need hardly remark, ranked as one of the most distinguished of medical authors. His writings are amongst the most scientific which medical literature contains. His "Physical History of Mankind," "Treatise on Insanity in relation to Jurisprudence," and his "Critical Examinations of the Remains of Egyptian Chronology," are monuments to his fame that will endure so long as science is cultivated.

Death of Dr. Parkin.—On the 24th of March last, in Woolwich, Dr. Parkin, R. N. in the seventy-first year of his age. At the time of his death he was Inspector of Fleets and Hospitals, having served upwards of fifty-three years.

PART FOURTH.

EDITORIAL

AND

AMERICAN MEDICAL RETROSPECT.

Cholera in New-York, and its progress in the United States.—In presenting our readers with an account of the epidemic at present existing in this city, we shall confine our pen to a simple record of the facts which have accompanied its rise and progress thus far. Those who have read the carefully prepared and valuable paper of Dr. Sterling, in the original department of this number, will remember that it is there stated that a second visitation of the disease occurred in the first week of April, at the Public Stores, Quarantine, Staten Island; from this date to the 30th of May there occurred forty-three deaths, and during this period twelve only were brought on shore at Quarantine sick with cholera. From a private communication, prepared and sent us, at our request, by Dr. F. Harriot, one of the physicians of the City Dispensary, and under whose cognizance and care the first seven cases in this city occurred, we learn that, on Friday, May 11th, James Gilligan, an Irish laborer, residing in the rear basement of No. 20 Orange-street, (a part of the "Five Points,") sickened the previous night with vomiting and purging, attended with cramps: the discharges were represented to have been of a dark color. Being exceedingly intemperate in his habits, and having indulged freely in drink, his sickness was attributed to this circumstance, and he was treated accordingly. On the 12th he had so far improved that he was considered convalescing. On Monday, (the 14th,) Dr. H. learned that two women living in the same cellar had sickened late in the evening of the 12th, in a similar manner. On again visiting the place, he found the two women and his previous patient, (Gilligan,) presenting all the appearances of the stage of collapse of cholera. Their situation was truly deplorable—lying on a few filthy rags, on the half-decayed floor of a miserably damp and dark basement: the odor on entering the room was disgusting in the extreme. The symptoms which these cases presented were as follows: Vomiting and purging of a fluid resembling in a striking manner, rice-water; violent cramps; cold, corrugated and blue skin, covered with a thick, clammy perspiration; sunken eyes; pinched and sharpened vis-age; a cold and lead-colored tongue; cold breath, and a scarcely perceptible pulse. Two of the cases died in a few hours. On the afternoon of the 14th a fourth case occurred: this patient died early the next morning. On Tuesday, (the 15th,) the resident physician of the city, Dr. GEER, was notified of the foregoing facts, who immediately visited the place, and reported to the Board of Health. On the following day, (the 16th,) the Board of Health convened, and a building in Anthony, near Centre-street, was seized upon for a temporary hospital, and Dr. WILLIAM P. BUEL appointed resident physician to the same. On the 16th Dr. HARRIOT reported three new cases, all of whom sickened the previous night; thus making seven cases and three deaths in all up to this date, from 20 Orange-street. On the 17th several new cases occurred; these, together with the previous cases that were still living, were removed to the temporary hospital. Of the new cases, two were not residents of No. 20, but of the immediate neighborhood, and who had attended there the "wake" of the first case. From the 11th, when the first case sickened, to the 18th, eleven cases had occurred, of whom six died. On the 19th the Sanitory Committee of the Board of Health reported that, for the forty-eight hours previous, no new case of cholera had occurred. On the 21st two new cases were reported; both fatal. On the 22d four new cases: one fatal. On the 23d the Sanitory Committee reported that no new cases and no death had occurred in the city since the last report. The resident physician also reported that the cases which had hitherto occurred were entirely sporadic in their character, and that the disease had not as yet assumed an epidemic form. From inquiry, however, we learned that there were, on the morning of the 23d, two deaths, and that the patients were brought in from the immediate neighborhood where the first cases occurred. On the 24th one case was reported, which proved fatal. On the 25th two new cases and one death. All these, as well as the cases thus far, were from the original nidus, No. 20 Orange-street, or its immediate neighborhood, and who had been directly or indirectly in communication with the first seven cases which occurred at this place. On the 26th, however, the Sanitory Committee reported two cases and one death as having occurred (on the 25th) at No. 10 Mulberry-street. They were removed to the Centre-street Hospital, under charge of Dr. BUEL. From this time cases continued to occur in different parts of the city, apparently without any connection with the previous cases. On the 8th of June the public school-house in William-street, near Duane, was seized upon by the Board of Health; and opened, under the care of Dr. ALEX. F. VACHE, on the 9th, for the reception of patients. The following is a tabular synopsis of the official reports of the Sanitory Committee of the Board of Health, up to the 30th of June, including the cases up to the 26th of May. Total number up to

Date.		Cases.	Deaths.	Date.		Cases.	Deaths.	Date.		Cases.	Deaths.
May	26	20	11	June	7	38	19	June	19	41	10
“	27	0	1	“	8	26	12	“	20	30	14
“	*28	0	0	“	9	40	19	“	21	26	14
“	29	8	4	“	10	16	10	“	22	38	16
“	30	7	2	“	11	24	12	“	23	40	21
“	31	8	2	“	12	36	19	“	24	38	21
June	1	8	4	“	13	44	14	“	25	47	25
“	2	13	7	“	14	38	16	“	26	73	38
“	3	25	11	“	15	27	14	“	27	43	20
“	4	23	9	“	16	27	15	“	28	60	20
“	5	39	11	“	17	26	18	“	29	39	18
“	6	60	11	“	18	42	17	“	30	88	26

Thus it will be seen that the whole number of cases officially reported by the Board of Health up to June 30th was 1158, and that the whole number of deaths was 519. We have not learned that any direct communication could be traced between the cases that occurred at the Public Stores at Quarantine, Staten Island, during the first week of April or afterwards, and those that first occurred at No. 20 Orange-street; although, for a number of days afterwards, a direct communication could easily be traced between the cases then occurring.

On the 26th of May a fatal case (the first) was reported to have occurred in Main-street, Brooklyn, L. I. opposite New-York. On the 29th the Board of Health of that city reported one case, which proved fatal in a few hours. The following is a tabular synopsis of the cases officially reported by the Board of Health from the 1st to the 29th of June, including those which had previously occurred. Total number up to

Date.		Cases.	Deaths.	Date.		Cases.	Deaths.	Date.		Cases.	Deaths.
May	31	2	2	June	10	0	0	June	20	3	3
June	1	2	1	“	11	2	1	“	21	5	3
“	2	1	2	“	12	2	0	“	22	0	0
“	†3	0	0	“	13	2	1	“	23	2	1
“	4	4	2	“	14	2	1	“	24	0	0
“	5	4	2	“	15	1	1	“	25	5	2
“	6	2	2	“	16	0	0	“	26	6	3
“	7	3	1	“	17	0	0	“	27	3	1
“	8	0	0	“	18	5	3	“	28	4	2
“	9	4	2	“	19	3	3	“	29	6	2

Total number of cases reported 74; deaths 40.

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* Owing to the absence of the Resident Physician, Dr. GEER, there was no report submitted to the Committee this day.

† On this and the following Sundays, marked with a †, there was no report from the Board of Health. The cases, therefore, are included in the following Monday's report.

On the 29th of May a case was reported to have occurred at Williamsburgh, opposite New-York; and on the 1st of June it was announced that five cases and three deaths had already occurred. Two fatal cases were reported on the 4th of June at Jamaica, L. I. On the 22d of May eight cases were announced in Philadelphia, and the same day three cases were reported to have occurred in Baltimore. On the 23d the Board of Health of the former city made an official report, in which they state that *no case of malignant cholera had come to their notice.* On the 30th, however, they report three cases of cholera, all of which proved fatal; and on the 31st two fatal cases were reported in the latter. The Board of Health of Norfolk, Va. reported, on the 30th of May, that, for the week ending the 29th instant there had been twelve cases and four deaths. On the 30th of May cases were reported to have occurred at Richmond, Va. and the legislature of that state, in the midst of the excitement, proposed to adjourn to the White Sulphur Springs. The physicians of that city, however, assured the public that, up to that date, no case of "*Asiatic cholera*" had occurred in that city. On the 31st, however, three deaths from cholera were reported. On the 5th of June the Board of Health officially reported five new cases and four deaths for the forty-eight hours ending on the evening of the 4th. The legislature now adjourned to Fariquer Springs.

At Boston, (Mass.) on the 4th of June, three cases—two of them fatal—were reported to have occurred on board the bark Argyle, just arrived from Scotland; and on the 5th another fatal case was reported. Since that time cases have occurred in that city, and in several other of the New England cities and villages. On the 7th of June five cases were reported to have occurred in Buffalo up to that date; two were indigenous: the remaining number were attacked on board of vessels, and were from places where the disease was prevalent. Cases have also occurred in Albany, Troy, and along the line of the Erie canal. At Chicago, on the 2d of May, a case was reported to have occurred, and on the 14th the Board of Health published a report, in which they state that, since the 2d instant, twenty cases and twelve deaths have occurred, principally among the foreign residents and the transient population.

The disease continues to prevail throughout the Mississippi Valley. On many of the plantations the mortality has been severe. To the north—in Indiana, Illinois, &c. it has extended; and in the south-west—in Texas—is still raging severely. It has re-appeared in New Orleans and Cincinnati with increased virulence. At St. Louis the disease is producing terrible havoc. With a population of about sixty-five thousand, just before it broke out, the deaths now exceed one hundred per day. On a future occasion, when our data shall have been more matured, we hope to lay before our readers a more detailed and accurate account of the progress and treatment of this singular epidemic.

OZONE, AND ITS CONNECTION WITH EPIDEMIC DISEASES.—Ozone, to which Influenza is ascribed by Schönbein, and Cholera by some of our Western brethren, has been variously described and defined. It has been imagined to be a combination of nitrogen and oxygen in some new proportion; or a new combination of oxygen and hydrogen. Spengler is quoted in the *Lon. Med. Gaz.* for Nov. 1848, as saying that it is "formed in the air, by the decomposition of its water through disturbance of its electrical equilibrium." Professor Draper, of the New-York University, regards it as the active state of oxygen, or oxygen rendered active by electricity. This opinion, which is clear and intelligible, seems to be proved to be true, also by the experiment of passing a current of electric fluid through pure oxygen; ozone is thus obtained, having a sulphurous odor, setting fire to phosphorus, and irritating the nostril, as in catarrh.

The test of its presence is a bit of paper dipped in a solution of iodide of potassium, and then in one of starch. The oxygen of common air acts slowly on it, and produces gradual change, and coloration. Ozone and ozonized air will occasion them to act promptly on each other, producing a dark blue color.

The description given by Spengler of its mode of production is not easily understood; he goes on as vaguely to add—"Hence its peculiar pungent sulphurous, phosporous odor." Whence? From the electrical decomposition of water. This gives us nothing that we know of but oxygen and hydrogen, which, in their ordinary states, have no such odor. He goes on to say that "sulphuric, probably telluric, selenic, and phosphoric acids destroys it. Vapors of ether, or alcohol, or olefiant gas prevent its development."

Dr. Moffat,* from the results of his experiments and observations, comes to the conclusion that the presence of ozone in large quantities in the atmosphere is invariably attended with catarrh and mucous diarrœa. Dr. Goulding Bird,† at a meeting of the Medical Society of London, held in October last, while the subject of cholera was under discussion, said that he had remarked and noticed it as a somewhat curious fact, that of late ozone, or peroxide of hydrogen, had been found in the atmosphere. Dr. Parkin, an English physician, residing in Spain, says he has used charcoal with great success in the treatment of cholera; he used it in doses from a tea-spoonful to a table-spoonful in water, every two or three hours. Dr. Spengler, from his observations, has been led to believe that sulphur or sulphurous gases must be an antidote to the poisonous influences of ozone. Dr. Bird and Professor Herrick, of Chicago, have detected the presence of ozone in the atmosphere of Chicago during the present epidemic, and both speak decidedly in favor of three or four grain doses of sulphur combined with charcoal. Professor Herrick says, "that all premonitory symptoms, such as pain, a sense of fullness, unnatural movements, slight diarhœa, &c. have uniformly yielded to this remedy" (? Ed.) In this city no such success has followed its use. To the pathologist the inquiry into the nature and influence of ozone has, indeed, become truly interesting.

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* British Association.—Athenæum Report. † London Med. Gaz. for Oct.

PROGRESS OF MEDICAL ORGANIZATION.—We have received from Dr. Edward Guilbert, Secretary of the Ottawa Medico-Chirurgical Association, Illinois, a very eloquent appeal to the profession of that State in favor of the formation of a State Medical Society; and naming the 1st of January next as the time, and the State capitol as a suitable place, for the assembling of a State Medical Convention for that purpose.

Since the formation of the American Medical Association, the work of locally organizing the profession has made rapid and most gratifying advancement.

New State organizations have been effected in Pennsylvania, South Carolina, Georgia, Mississippi, Michigan, and we are glad to see that our brethren in Illinois are determined not to remain long behind in the good work. This is one of the most encouraging features in the present aspect of our profession. With a thorough and active internal organization, we have a sure basis for the ultimate accomplishment of every desirable improvement; while without it we can neither have concert of action, nor any efficient mode of accomplishing the most obvious purposes. The meeting of the American Medical Association at Cincinnati, the coming May, presents another motive for a speedy organization among our Western brethren. They should see to it that the coming meeting in Cincinnati does not fall below the recent one in Boston, either in numbers or interest. We hope our readers in that State, and indeed all others belonging to the profession, will promptly respond to the call of the Ottawa Association.

N. S. D.

Second Annual Meeting of the American Medical Association.—The following synopsis of the proceedings of the Second Annual Meeting of the American Medical Association we condense from the Medical Examiner, for June.

The Association met in Boston, May 1st, in the Hall of the Lowell Institute.

The President, Dr. Alexander H. Stevens, of New-York, in the chair.

Dr. J. C. Warren, of Boston, on behalf the Massachusetts Medical Society, presented to the Association the salutation and welcome of his constituents, after which an address was delivered by Dr. Stevens, in which he dwelt upon the objects and duties of the Association, the advantages already derived from it by the partial reforms which had been commenced in accordance with its recommendations: as well as the great good which must necessarily follow from promoting personal intercourse among members of the profession from various parts of the country, and thus ensuring interchange of sentiments and opinions at stated periods.

The committee of arrangements reported twenty States represented, and two hundred and eight delegates, as registered at ten o'clock the evening previous. The number present, as afterwards reported, was about four hundred and fifty.

The committee on nominations, consisting of one from each State, appointed by the delegates, reported the following officers for the ensuing year, and their nomination was unanimously confirmed. *President.* Dr. J. C. Warren, Mass. *Vice-Presidents.* Dr. J. P. Harrison, Ohio. Dr. H. H. Maguire, Va. Dr. A. Flint, N. Y. Dr. R. S. Stewart, Md. *Secretaries,* Dr. Alfred Stille, Pa. Dr. H. J. Bowditch, Mass. *Treasurer,* Dr. I. Hays, Pa.

The committee on nominations were continued, and instructed to nominate the usual standing committees for the ensuing year; and to facilitate their operations, it was requested that the names of suitable persons to act upon these committees should be handed in.

Dr. Condie, of Philadelphia, chairman of the committee on Practical Medicine, presented the annual report. After reading a small portion of it he was interrupted by a motion to refer it to the committee on publication, which, after some discussion, was carried.

Dr. N. R. Smith, of Baltimore, presented and read the annual report of the committee on Surgery. A large portion of the report was occupied in the consideration of anæsthetic surgery, to which it was entirely favorable. The committee consider it inadmissible to perform a serious surgical operation without the use of chloroform, inasmuch as by it both safety and immunity from pain are secured. Of the two prominent anæsthetic agents, chloroform and ether, the former is preferred, inasmuch as its unfavorable effects, when they do occur, are visible at once, whereas, when ether is used, its consequences sometimes remain long after. Dr. S. thinks he has traced irritative fever to the protracted influence of the latter agent.

Chloroform is the most powerful anæsthetic agent known, and requires that care should be used in its administration. It should never be used in trivial cases, nor in diseases of the heart: a due admixture with atmospheric air is also requisite for safety. In careful hands it is an invaluable agent. The author of the report has administered it *thirty-four* times to one patient, a young woman, to the extent of complete insensibility, without any unpleasant result. Prof. Mott, of New-York, has performed operations which he would not have attempted without the aid of chloroform. On the subject of Fractures and Lithotomy the report was also voluminous.

The entire report was listened to with marked attention, and referred, without discussion, to the committee on publication.

Dr. C. R. Gilman, of New-York, acting chairman, presented and read the annual report of the committee on obstetrics.

The greater part of this report was also occupied in the discussion of anæsthetics in midwifery; and in order to present the subject candidly to the Association, the principal objections of those opposed to its use were incorporated into the report. The committee give it as their deliberate opinion, that the chances of a patient's recovery are greatly increased by the use of anæsthetics, and the question is not whether they may or may not be safely administered, but whether they *can be rightfully withheld.* Who that has ever compared the panting and exhausted subject of an instrumental labor, with the calm and tranquil recipient of anæsthesia, could fail to arrive at the same conclusion? In regard to the choice of anæsthetics, the report declares that chloroform has every advantage over ether, except *in point of safety,* but that in experienced hands this objection does not obtain. Dr. Channing's contribution to the literature of this subject, in his work "Etherization in Child-birth," received a justly deserved and flattering notice in this portion of the report. The report was accepted, and referred without comment to the committee on publication.

Dr. J. P. Harrison, of Ohio, presented and read the annual report of the Committee on Medical Literature. The report embraced the division marked out by the constitution, viz:

First. The general character of medical periodical literature in the United States.

Second. A consideration of the most important and prominent articles that are thus brought to our notice.

Third. Original or native American medical publications.

Fourth. Medical compilations and compends of American writers.

Fifth. American reprints of foreign periodical medical books.

Sixth. All such measures as may be deemed advisable for encouraging and maintaining a medical literature of our own.

Under the first head, the report states that there are twenty American medical journals published in the United States, and four reprints of foreign journals. Of these, five are quarterlies, six are issued bimonthly, six monthly, one three times a year—the Transactions of the Philadelphia College of Physicians—and one weekly.

Through the agency of these journals much valuable material has been added to the medical literature of the country, and their pages have been enriched by contributions from the most eminent members of the profession both at home and abroad.

Of the American contributions a brief summary was embraced in the report.

The library of the Pennsylvania Hospital was described as the largest in the country. Commencing originally in 1762 by the donation of a single volume by Dr. Fothergill of London, it has increased to the extent of ten thousand volumes. There are many other extensive libraries throughout the country, some containing seven thousand, others three thousand, and two thousand volumes. The Library of Harvard College numbers one thousand seven hundred and sixty-nine volumes; that of the medical department of Harvard University twelve hundred volumes.

That portion of the report embracing the measures deemed advisable for encouraging and maintaining a medical literature of our own, stated that there was much valuable literary material unknown to the public in consequence of deficient means on the part of the authors, or a disinclination on the part of publishers to take hold of anything that was not endorsed by a well known name, and instanced the unpublished literary remains of the late Dr. Forry, of New-York. It recommended that a board of publication should be established, to whom such materials should be presented, with authority to publish them should they be deemed worthy.

Appended to the report was the following resolution:

Resolved, That a committee of three be appointed to take into consideration the measures recommended in this report for the promotion of our national medical literature, with instructions to report at the next annual meeting.

The report of the Committee on Medical Literature was accepted, and referred to the committee on publication, and the resolution appended to it was adopted; Drs. Horner, Condie, and Hays, of Philadelphia, were appointed the committee.

Dr. G. B. Wood, of Philadelphia, moved that it be the duty of the same committee to report on the subject of an international copy-right law.

In urging this motion Dr. Wood remarked, that it was essential to the medical literature of the country, that an international copy-right law be established. He claimed it for our own writers, who now receive no encouragement. American publishers can now procure and reprint foreign books for a less price than American authors can afford to write them. They must produce a better book, a great deal better book than the English writer, or they cannot find an American publisher who will pay them for their work. He claimed it also on the ground of justice to English writers, who were despoiled of the labor of their head and hands by the cupidity of our booksellers.

The motion was *carried*.

Dr. M. L. Taft, on behalf of Dr. F. C. Stewart, of New-York, chairman of the Committee on Medical Education, presented and read the annual report, which, in accordance with the requirements of the constitution, embraced a complete account and comparison of the medical institutions of Europe and this country, with the requirements for admission and graduation; the number of students, graduates, professors; branches taught, terms of study, &c. the regulations and requirements of Army and Navy Boards of Examiners in Great Britain and this country; the legal requirements exacted of medical practitioners in the several States of the Union; together with remarks on the general condition of medical education in the United States, compared with other countries, with suggestions as to its improvement.

With regard to the best method of improving medical education, the report recommended the insisting upon preliminary education, and the appointment of primary boards of examiners, whose certificate of qualification shall be essential to the reception of the student into a medical school. The board should examine the candidate, (should he not be a graduate of some literary institution) upon Latin and Greek, and require suitable testimonials as to moral character. The subject of the extension of the lecture term was not alluded to in the report, probably because the Association had already settled that question affirmatively.

Dr. John Ware, of the Medical department of Harvard College, presented a paper in answer to the queries of the Committee on Education, from a Committee of the Faculty, who were appointed to take into consideration some of the recommendations of the Medical Association with regard to medical lectures, particularly in reference to extending the courses of lectures beyond the established period of four months. The purport of the paper was that the Faculty were constrained to differ from the views of the Association with regard to the prime importance of lectures, and also that, in their view, no profitable object could be gained by extending the term of lectures beyond a period of four months. Lectures are a subordinate and subsidiary part of a medical education. The great object in view from them is to teach the student how to study for himself. The paper did not undervalue the importance of medical lectures—far from it. Information was communicated through these sources which would not be acquired any other way; but it was desirable that they should take their proper place in the education of students. It regarded the establishment of private Medical Schools in our cities as of very great importance.

A series of resolutions was appended to the report, upon which considerable discussion arose. The report of the committee was accepted and referred to the committee on publication, and the resolutions were brought separately before the Association in committee of the whole.

The following are the resolutions which were appended to this report:

1st. *Resolved*, That the attention of Medical Colleges be again directed to the resolutions of the Committee on Preliminary Education adopted by the Medical Convention of 1847, and that they be advised to require from students that they shall, in all cases, produce certificates of preliminary education. *Carried.*

2d. *Resolved,* That the several State and County Societies, as well as all voluntary Medical Associations throughout the country, be advised and requested to adopt the plan proposed by the Medical Society of the State of New-York at its last annual meeting, for ensuring due attention to the subject of preliminary education.

Dr. Davis, of New-York, explained that the plan of the New-York State Society was, that every County Society should appoint a board for preliminary examinations of students, with a view that they should be required to produce certificates from such boards before they could be received as medical students in the office of any private medical practitioner.

A gentleman, whose name we could not learn, offered the following as an amendment:

Resolved, That as students are generally introduced to the profession by private preceptors, it is recommended that no student be received by them unless they come up to the standard of preliminary education prescribed by this Association.

The question being upon the amendment, it was adopted by a large vote.

3d. *Resolved,* That this Association does not sanction or recognize "College clinics" as *substitutes* for Hospital clinical instruction, and that the Medical Colleges be again advised to insist, in all instances where it is practicable, on the regular attendance of their pupils during a period of at least six months upon the treatment of patients in a properly conducted Hospital, or other suitable institution devoted to the reception and care of the sick.

The resolution was adopted.

4. *Resolved,* That it would conduce both to the convenience and advantage of students, if the subjects taught in the Colleges were divided into two series; the one of which should be studied during the first year's attendance on lectures, and the other during the second session. And that examinations should be substituted at the close of the first course of lectures on the subjects taught during that course; certificates of which should be required prior to the final examination. Rejected.

5. *Resolved,* That it is the deliberate opinion of this Association that the plan of examining students for medical degrees in private, and before one professor only at a time, is highly defective, and should be at once discontinued. Laid upon the table.

6. *Resolved,* That examinations for medical degrees should be practical, and that it is desirable as far as practicable that they should be conducted in writing as well as *viva voce.* Laid on the table.

7. *Resolved,* That in view of the importance of a due knowledge of practical pharmacy, the medical schools be advised to require from candidates for degrees that they should produce satisfactory evidence of their having been engaged in compounding medicines and putting up prescriptions, either under the direction of their private preceptors, or in the shop of a recognized and qualified apothecary. Laid upon the table.

In regard to examining boards and licenses:

8. *Resolved,* That the interests both of the public and the medical profession would be promoted by the establishment of boards of examiners in each of the States of the Union, to examine candidates for licenses to engage in the active practice of medicine and surgery. Laid upon the table by a vote of 69 to 54.

9. *Resolved,* That the standard of requirements established by the examining boards of the several States should be uniform, and that the examinations should, as far as practicable, be conducted in a similar manner. Laid upon the table.

10. *Resolved,* That the examiners should, in all instances, satisfy themselves that candidates are familiar with the elementary branches of general knowledge. Laid upon the table.

11. *Resolved,* That for the purpose of carrying out the objects contemplated in the foregoing resolutions, a special committee of seven members be appointed to prepare a memorial and form of law in reference to the subject of the establishment of boards of medical examiners, to be submitted to the Association at its next annual meeting. Indefinitely postponed.

The committee of the whole having thus considered the resolutions submitted to them by the report on medical education, arose and reported to the Association, and their action was confirmed.

On the motion of Dr. Stevens, of New-York, it was voted, That the whole subject matter of medical education, together with the resolutions which have been passed, and those which have been laid upon the table, be referred to a special committee of three members, with instructions to report to-morrow morning. The chair appointed Dr. Stevens, of New-York, Dr. Wood, of Philadelphia, and Dr. Knight, of Connecticut, as the committee.

The following is the report of that committee:

1st. *Resolved,* That the Association reiterate their approval of the resolutions in reference to medical education adopted by the Convention which met in Philadelphia in May, 1847, and contained in pages 73 and 74 of the published proceedings of that Convention.

2d. *Resolved,* That the attention of Medical Colleges be again directed to the resolutions of the Committee on Preliminary Education adopted by the Medical convention of 1847, and that they be advised to require from their students that they shall, in all instances, present certificates of due preliminary acquirements prior to graduation.

3. *Resolved,* That physicians, generally, throughout the Union, be advised and requested to require of those wishing to become their pupils, evidence of a proper general education before admission into their offices.

4th. *Resolved,* That the Association does not sanction or recognise "College Clinics" as substitutes for Hospital clinical instruction; and that the Medical Colleges be again advised to insist, in all instances where it is practicable, on the regular attendance of their pupils, during a period of six months, upon the treatment of patients in a properly conducted hospital, or other suitable institution devoted to the reception and cure of the sick.

5th. *Resolved,* That in accordance with a resolution of the American Medical Association, adopted May 4th, 1847, "it is earnestly recommended to the physicians of those States in which State Medical Societies do not exist, that they take measures to organise them before the next meeting of this Association."

6th. *Resolved,* That the State Societies be recommended, after they shall have been organised, to recognise as regular practitioners none who have not obtained a degree in medicine, or a license from some regular medical body, obtained after due examination.

7th. *Resolved,* That the Association recommend to the various Schools of Medicine to meet at Cincinnati before the next annual meeting of this Association, and present a plan for elevating the standard of medical education to this Association.

The committee do not deem it expedient that the Association should now adopt, further than may have been done in the preceding resolutions, the recommendations offered in the several documents referred to them.

On motion of Dr. Harrison the report was accepted, and the Association went into committee of the whole, Dr. R. D. Arnold in the chair, for the purpose of considering the resolutions attached to the report. These were taken up successively, and, after prolonged discussion, were reported to the Association without amendment, but with the addition of the following, proposed by Dr. T. E. Bond, Jun. of Maryland:

Resolved, That this Association recommend the encouragement of private medical institutions, strongly advising that Dispensary practice be made, as far as possible, a part of the means of instruction.

The resolutions reported by the Committee of the whole were then adopted.

The annual report of the Committee on Hygiene, Dr. Jas. Wynne, of Baltimore, chairman, was, in his absence, presented and read by Dr. Isaac Parrish, of Philadelphia,.

Appended to this report were two able and interesting papers, one presented and read by Professor S. Jackson, of Philadelphia, on the influence of tea and coffee, used as food; and one by Dr. Josiah Curtis, on the Sanitary Condition of Massachusetts.

The report and the papers were accepted, and referred to the Committee on Publication.

The annual report of the Committee on Indigenous Botany was presented by the Chairman, Dr. N. S. Davis, of New-York. The report (of which a verbal synopsis only was given) stated that our acquaintance with the medicinal properties of our indigenous plants was very slight and unsatisfactory. The Committee, during the past year, had been making careful investigations, both by analysis and experiment, to discover the actual value and precise action of a number of substances admitted into the materia medica, concerning which the books gave no satisfactory account. As illustrative of this, he stated that of

1000 plants reputed to possess medicinal virtues, but 150 are even slightly known. Of 280 native and naturalized plants mentioned in one of our best works on botany, we are told, concerning 150 of them, merely that they have been employed by the Indians for such and such purposes. This kind of information was not such as the present state of scientific accuracy demanded. Very little is known of the real virtues and uses of our native plants, but it is hoped that the investigations which have been commenced, under the auspices of the Association, will be continued and perfected.

The report was accepted and referred to the Committee on Publication.

The Committee appointed to consider the subjects presented by the report on Medical Literature, and the resolution of Dr. Wood, obtained permission to report *in part,* and submitted the following resolution.

Resolved, That a committee of three be appointed to memorialize Congress in favor of an international copy-right law.

This was so far amended as to require the proposed committee to prepare a memorial on the subject, and submit it to the Association at its next annual meeting. The motion, as amended, was *adopted,* and Drs. G. B. Wood, T. E. Bond, and I. Hays, were appointed as the committee.

The following preamble and resolution, presented by Dr. Evans, of Indiana, were adopted.

Whereas, Merit should be the test by which one individual is preferred to another; and *whereas,* the places of profit and honor in our profession should be open to the competition of all, in order that the best selections may be made therefrom,

Resolved, That Trustees, and others, exercising the office of appointing Professors in Medical Schools, be requested to adopt the system of *concours,* or public trials, among the means resorted to for calling out the talent of the profession, and ascertaining the qualifications of applicants.

Dr. G. B. Wood submitted the following preamble and resolution, which were adopted.

Whereas, A document prepared by the Medical Faculty of Harvard University, and appended to the Report of the Committee on Medical Education, contains an elaborate defence of the limitation of the courses of medical instruction in the schools to four months; and, *whereas,* this document has been referred, along with the Report of the Committee on Medical Education, to the Publishing Committee, and, if it be not mistaken by the public as a representation of the views of this association, may, at least, have the effect of contravening those views, unless they be properly supported; therefore,

Resolved, That a committee be appointed to prepare, at leisure, a statement of the facts and arguments which may be adduced in favor of the prolongation of the courses to six months; and that the statement thus prepared be printed in the forthcoming volume of the Transactions of the Association. Drs. S. Jackson, (Prof.) J. L. Atlee and A. Stillé, were appointed the committee.

Dr. U. Parsons, from a Select Committee appointed at the meeting of 1848, made a report on the subject of adulterated and spurious drugs, and offered the following resolutions.

Resolved, That a committee, consisting of two delegates from each State here represented, be chosen by the President, to note all the facts that come to their knowledge with regard to the adulteration and sophistication of drugs, medicines, chemicals, &c. and to report them at the next annual meeting.

Resolved, That the President be requested to sign, and forward to the Philadelphia College of Pharmacy, a letter, stating that the Association are pleased to hear of its laudable intentions to prepare and publish some simple directions for detecting adulterations in medicines, adapted to the understanding of the people generally, and would be highly gratified could they welcome its appearance before the next annual meeting.

Dr. Ware submitted the following resolution, which was adopted,

Resolved, That the Committee on Practical Medicine be instructed to inquire into the expediency of adopting the English language exclusively in the writing of prescriptions, and in all directions for the composition and administration of medicines, and to report at the next annual meeting of the Association.

Dr. G. B. Wood, of Philadelphia, stated that he had a brief report to make, as a delegate from this Association to the British Association, and to the Provincial Medical and Surgical Association of England, the annual meetings of which he had attended in August last in fulfilment of the objects of his appointment. Of the British Association he had only to say, that he was treated with all personal courtesy, and invited to participate in the proceedings of that body with the privileges of a member. By the Provincial Medical and Surgical Association he had been received with the most flattering distinction in his capacity as a delegate. The Association appeared to be much gratified by the compliment paid them, and expressed, through their President, their high appreciation of this Society, and their reciprocations of the sentiments conveyed to them; and passed a resolution, unanimously, requesting him (Dr. Wood) to convey their thanks to the American Association.

Dr. J. B. Johnson, of Missouri, introduced the following preamble and resolution, originally presented by him to the Medical Convention at Philadelphia, in 1847, and they were referred to the Committee on Medical Education.

Whereas, Numberless and important evils result from the almost universal practice of allowing persons wholly ignorant of drugs and medicines to engage as Apothecaries; and still greater, from the universal trafic in patent and secret remedies; therefore,

Resolved, That the Committee on Education inquire into the expediency of establishing a school or schools of Pharmacy in the respective States, for the special purpose of preparing persons for the business of Apothecaries; and also the expediency of adopting a rule, that no Physician ought to patronize a Druggist or Apothecary who deals in patent and secret medicines—and report at the next annual meeting of the Association.

Dr. James Wood, of Pennsylvania, presented the following resolution, which was *adopted.*

Resolved, That the Committee on Medical Science, for 1849, be instructed to inquire into the expediency of establishing a Board to analyze the quack remedies and nostrums now palmed upon the public, and to publish the results of their examinations in a newspaper to be established for the purpose; and farther, to append such plain views and explanations thereto as will enlighten the public in regard to the nature and dangerous tendencies of such remedies.

Dr. Stevens, of New-York, offered the following resolution.

Resolved, First, that a committee of seven be appointed to consider the subject of forensic medicine; second, a similar committee on indigenous botany and materia medica; and, third, a committee on hygiene; the committees to be nominated by the general Nominating Committee. Carried.

The Committee on Nominations reported the following Standing Committees to act for the ensuing year. *Adopted.* The list is as corrected by the Nominating Committee, after the vacancies created by resignation had been filled.

Committee on Medical Science.—Dr. Usher Parsons, Providence, R. I. Chairman; Dr. J. Bigelow, Boston; Dr. J. B. S. Jackson, Boston; Dr. A. B. Malcolm, Dubuque, Iowa; Dr. Jas. Moultrie, Charleston, S. C.; Dr. G. Emerson, Philadelphia; Dr. D. King. Newport, R. I.

Committee on Practical Medicine.—Dr. J. K. Mitchell, Philadelphia, Chairman; Dr. R. La Roche, Philadelphia; Dr. F. West, Philadelphia; Dr. J. A. Swett, New York; Dr. James Jones, New Orleans; Dr. R. D. Ardnold, Savannah; Dr. —— Smith, Indiana.

Committee on Surgery.—Dr. R. D. Mussey, Cincinnati, Chairman; Dr. W. M. Awl, Columbus, Ohio; Dr. A B. Shipman, Syracuse, N. Y.; Dr. G. Fox, Philadelphia; Dr. L. A. Dugas, Augusta, Ga.; Dr. S. Parkman, Boston; Dr. J. R. Wood New-York.

Committee on Obstetrics.—Dr. T. G. Prioleau, Charleston, S. C. Chairman; Dr. L. D. Ford, Augusta, Ga.; Dr. Robert Lebby, Charleston, S. C.; Dr. Josiah Bartlett, Stratham, N. H.; Dr. H. F. Askew, Wilmington, Del.; Dr. John Evans, Chicago, Ill.; Dr. Isaac Lincoln, Brunswick, Me.

Committee on Medical Education.—Dr. J. Roby, Baltimore, Md., Chairman; Dr. Blatchford, Troy, N. Y.; Dr. G. M. C. Roberts, Baltimore; Dr. R. W. Silvester, Norfolk, Va.; Dr. F. A. Ramsay, Knoxville, Tenn.; Dr. Geo. Summer, Hartford, Conn.; Dr. W. H. Rockwell, Brattleboro, Vt.

Committee on Medical Literature.—Dr. Alfred Stillé, Philadelphia, Chairman; Dr. F. G. Smith, Philadelphia; Dr. T. H. Yardley, Philadelphia; Dr. P. C. Gillard, Charleston, S. C.; Dr. A. T. Morris, Montgomery, Ala.; Dr. J. Fithian, Woodbury, N. J.; Dr. J. B. Johnson, St. Louis, Mo.

Committee on Publication.—Dr. I. Hays, Philadelphia, Chairman; Dr. A. Stillé, Philadelphia; Dr. H. J. Bowditch, Boston: D. F. Condie, Philadelphia; Dr. B. F. Barker, Norwich, Conn.; Dr. Isaac Wood, New-York; Dr. N. J. Pittman, Rocky Mt. N. C.

Committee on Forensic Medicine.—Dr. A. H. Stevens, N. Y., Chairman; Dr. Luther V. Bell, Boston; Dr. Pliny Earl, New York; Dr. W. H. Rockwell, Vt.; Dr. Robert Watts, New York; Dr. R. S. Steuart, Baltimore; Dr. J. Knight, New Haven, Conn.

Committee on Indigeneous Botany and Materia Medica.—Dr. Eli Ives, New Haven, Chairman; Dr. G. L. Corbyn, Warwick, Co. Va.; Dr. H R. Frost, Charleston, S. C.; Dr. W. H. Davis, Baltimore; Dr. B. B. Lenoir, Roane, Co. Tenn.; Dr. W. B. Cochran, Middleburg, Va.; Dr. J. P. Harrison, Cincinnati.

Committee on Hygiene.—Dr. J. M. Smith, N. Y. Chairman; Dr. A. K. Gardener, New York; Dr. E. Jarvis, Dorchester, Mass.; Dr. A. T. M. Cooke, Norfolk, Va.; Dr. R. S. Holmes, St. Louis, Mo.; Dr. G. Emerson, Philadelphia; Dr. J. C. Simonds, New Orleans.

The committee recommended Cincinnati as the next place of meeting, and the following as the Committee of Arrangements:—Dr. Dodge, Dr. Judkins, Dr. Rivers, Dr. Lawson, Dr. Richards, and Dr. Strader; all of Cincinnati.

On motion, a vote of thanks was presented to the Officers of the Association for the efficious and courteous manner in which they had discharged their duties, and to the Committee of Arrangements for their kind and hospitable reception of the delegates. Dr. Z. B. Adams responded on behalf of the Committee of Arrangements; and, after receiving the congratulations of the President upon the happy termination of their labors, the Association adjourned on Friday evening, May 4th, *sine die.*

ANATOMY AND PHYSIOLOGY.

Development and Growth of the Articular Cartilages.—By Joseph Leidy, M. D.—The articular cartilages, as a distinct structure, are not perceptible so long as the epiphyses and articular extremities of the bones are not ossified, consequently they do not exist during fœtal life or for a considerable period after birth. At birth, if an epiphysal extremity of a long bone be cut vertically through, it will be observed that the cartilage of the epiphyses extends to the synovial membrane, and that there is not the slightest trace of a line of demarcation between the two varieties of cartilage. If the section be more carefully examined, a number of branching canals will be observed ramifying through the cartilage, many of which approach its articular surface, but are in all cases separated from it by a thin lamina of the cartilage containing no canals. This thin lamina is the first appearance of the articular cartilage, but presents no distinction of structure at this period from the mass of cartilage of the epiphysis. The canals of the epiphysal cartilage contain blood-vessels, which, according to Mr. Toynbee,* have a very peculiar disposition, consisting of arteries terminating in dilatations, or in convoluted branches, from which the veins arise. In the process of ossification and increase in size of the epiphysal cartilage, the developing articular cartilage appears to be pushed before it, resulting from an interstitial growth depending upon the division of the primary cartilage cells, the probable development of others, and the increase of the matrix or intercellular substance. When the articular surface cartilage of a cartilaginous epiphysis is examined microscopically, it is found to have all the characters of the latter, and at an early period of fœtal life consists of a transculent, hyaline substance, in which are diffused with considerable uniformity, rounded or elliptical, isolated, nucleolo-nucleated cells, separated from one another by interspaces less than their own diameter. They vary to a moderate degree in size, and average about the $\frac{1}{1785}$th of an inch in diameter. The cell contents forms a mass rather darker than the intercellular matrix, the reverse of what is the case in the perfected articular cartilage. It is finely granular, with an intermixture of coarser and more defined granules, some of which appear to be oleic in character. The nucleus is round or oval, varies a little in diameter, averaging about the $\frac{1}{3570}$th of an inch, and is very finely granular in structure. Sometimes there are two nuclei, sometimes separated and distant, at others, approached, flattened upon the opposed sides, and apparently having originated from the division of a single nucleus. The nucleus contains a more consistent, translucent nucleolus, readily brought into view by the tincture of iodine, and measuring about the $\frac{1}{11111}$th of an inch. The intercellular substance is comparatively soft, very translucent, and homogeneous. As the articular cartilage advances in its development, the intercellular matrix increases in quantity, separating the cells at greater distances apart, and acquires a firmer consistence. It becomes faintly granular, which after a time becomes more decided, though indistinct at any time without a good defining power, and finally takes on the peculiar filamentous arrangement described in a previous part of this memoir.

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* Phil. Trans. 1841, p. 166.

But the question arises, how does this intercellular substance increase in quantity ? Is it a direct deposit of imbibed matter from the liquor sanguinis in the vicinity of the cartilage, or is it produced through the agency of the cartilage corpuscles, or organic cells of the tissue ? Recollecting that the liquor sanguinis does not contain dissolved cartilage, it cannot be a direct deposit ; but may not the cartilaginous molecules already produced, convert an assimilative substance into molecules of a similar character, chemical and physical ? The latter is probable, but it is easier to suppose it to be formed from imbibed albumen, through the agency of the cartilage cells, in the same manner that it originally results from the albumen ovi, probably through the agency of cells, the earliest cartilage cells, which have been the offspring retaining part of the organizing force of the Purkinjean vesicle. As it is certain that cartilage tissue is produced from albumen, it is worthy of inquiry whether the organic cells of the cartilage are capable of fixing a material thus transformed in their vicinity. If it can be demonstrated that such a power exists in organic cells in any part of the organic kingdom, we may feel assured that it prevails throughout. Turning back, then, in vitality's great book, to the first few pages, we discover some very simple expositors of the question at issue. Thus, if we examine several of the families of Chlorospermeæ, the oscillatoriæ, ulvaceæ, nostochineæ, &c. we find numerous zooid plants, some of the simplest forms in the organic kingdom, consisting of single rows of organic cells, enveloped in a mucoid substance, and swimming in water or flourishing in humid situations. When the green spores, single organic cells filled with endochrome, and containing a nucleus, are discharged from a parent cell, they accumulate and fix around themselves a mass of mucoid substance from the nutritive matter floating in the element around them. The sport develops a perfect plant, a mere filament or row, or a lamina of cells, continues to accumulate mucoid matter around it, until the latter is frequently several times the diameter of the plant itself. Retaining its organic activity, it produces spores, which are to be discharged, and undergo the same progressive changes. Perceiving, then, that these cells can collect and fix matter around them, and continue to operate upon imbibed nutritive fluid, it is rendered probable that an analogous process may be carried on in the denser cartilage, since the latter, as is well known, is capable of imbibing nutritive fluid.

Whether the surrounding matter is formed within the cells and then exosmosed, or whether the cell life extends its formative power beyond the precincts of the cell wall, remains a question; but I think both are probable.

The cartilage cells at the early period of development are easily detached from the matrix, but at a later period the cell wall fuses or blends itself with the intercellular substance, but even after this the granular cell contents is easily detached in a single mass, appearing to be retained together by a delicate protoplasmatic envelope, corresponding to the primordial utricle of vegetable cells. Of the existence of such a structure in some animal cells I am well convinced, and hope to prove in a future memoir on the subject.

After the cartilage matrix has taken on itself the granulo-filamentous structure, the cartilage cells increase in number by division, and probably also by the origination of new cells. In studying the development of the groups of cells of the perfected articular cartilage, the steps of progress, as noticed at several periods during the growth of the latter, appear to be as follows:

The simple isolated cartilage cells are found to become somewhat elongated, then at the sides to present the appearance of an indentation. The nucleus has a central position, and then a faint dividing line, more translucent than the other parts of the cell, is observed crossing the short diameter of the cell, resembling somewhat the transverse line of dehiscence of an ovisac. By varying the focus of the microscope, it is found that this line penetrates as a plane through the cell. The next change which is remarked, is the retiring of the granular cell contents from the inner parietes of the cell wall, excepting where in contact with the dividing line of the cell. The cell wall has now become blended with the intercellular substance, and the latter also occupies a position between the inner surface of the cell wall, with which it also blends, and the retiring cell contents. The cell contents at this period distinctly presents itself divided into two masses, corresponding to the previously mentioned line passing through the cell, and each mass contracts itself with the contained half of the original nucleus, towards the centre of its respective cell.

From the uniformity with which the granular cell contents contracts, holding all its contained parts together, granules, nucleus, and fat globules, I am strongly impressed with the idea that it has a protoplasmatic envelope or primordial utricle. In vegetable cells we frequently observe the same mode of retiring of the granules of endochrome retained together by the delicate, transparent, mucoid envelope, the primordial utricle, and, as is well known, this may be produced by artificial means, which I find to be also the case with the cartilage cells, for I have observed the cell contents slightly and very gradually contract in a single mass upon the application of tincture of iodine, or even under the long-continued imbibition of water.

Whether the division of the nucleus precedes that of the cell, or the reverse, still remains a problem. Cartilage cells are not unfrequently observed containing a nucleus apparently in progress of division, and others, with a pair of nuclei near each other, and flattened upon the opposed sides, having the appearance as if the result of division of a primitive nucleus, without the slightest trace of any disposition of the cells to divide themselves. In other instances I have detected cells presenting a slight parietal indentation, without any similar appearance of the nucleus; and in all other cases, when the cell exhibited signs of division, a corresponding change was invariably observed in the nucleus.

The pair of cartilage cells which have originated from the primary cell, increase in size by the assimilation of nutritive matter, and undergo the same division as just described, until groups are formed as found existing in the perfected cartilage. The cell contents continually retire, but at the same time appear to partake in the general nutrition of the cell, until in the cell group we find the masses generally central, frequently irregular in outline, and containing more or less oil globules, and one or two nuclei; and in this state have been generally mistaken for the nuclei of the cartilage cells.

The cells, in their progressive division, do so generally in the same line, but also very frequently divide, laterally, so that the pair of cells resulting from the division of the first, may either form a row of four, or a group of four, and continue in this manner. The cause determining the arrangement of the cells into rows instead of masses, has already been referred to; the least resistance to their extension being parallel with the filaments of the cartilage matrix.

The irregularity which exists in certain of the cell groups, especially in the stratum lying about one-fifth the thickness of the articular cartilage below its free surface, probably depends in some degree upon the pressure of the opposed cartilages of the joints. I do not mean by this that a sudden push would knock the deeper groups out of a vertical line, but I think, during the progress of division of the cells and extension of the groups, a frequently repeated or moderately continued pressure exerted upon the free surface of the cartilage, would give them a tendency to incline to one or the other side, and hence their obliquity, or curved or irregular character from the ordinary line in a part of the cartilage most influenced by the pressure.—*Amer. Jour. Med. Sci. for April.*

The Capillary Circulation.—By B. Dowler, M.D. (*N. Orleans Med. and Surg. Jour.*) In a recent number of that Journal Dr. Dowler presents some novel views on this subject. In speaking of the experiments which he instituted, he says:

In perhaps one-fourth of these dissections, the bodies were carried to the dissecting room a few minutes after death. The external veins, chiefly of the arms, and neck, sometimes became distended—these being opened, the blood often flowed in a good stream—sometimes shot out a foot or more; (that is formed an arch having that diameter.) In some cases, by putting a ligature upon the arm, or by grasping it above the elbow, the blood was made to flow more freely, and, by moving the muscles, as the patient is wont to do in ordinary blood letting, the blood shot out some distance. Punctures in the middle of the subclavian, discharged blood, which arose in a full stream, against gravity, two or three inches, forming, sometimes, an arch as it fell. The coronary veins of the heart discharged blood rapidly, and with surprising force. I have observed within a few minutes after death, the flow of from twenty to thirty ounces of blood from the scalp, the head being raised:—Prominence of the veins, after death, is doubtlessly owing to the capillary circulation, which first fills the central, and then the external veins to excess: These dissections show conclusively the independent action of the capillaries. If capillary action exist independently of the heart, congestions, &c. may disappear, and others form during or after death, &c. Hæmorrhages after death, &c. Post-mortem blood letting proves that the heart's action is not necessary to the capillary circulation. The proofs are many, though they might have been greatly multiplied, had I taken a just view of this matter sooner—distention of the veins, copious hæmorrhages, crimsoned flushings of the face, passed for nothing—not supposing it possible that the veins could discharge more blood than what they contained at the moment of death, nor that capillary life survived the extinction of the general life, as manifested in sensation, respiration, systematic circulation, &c. But, as soon as I had discovered the curious and complex laws of post-mortem contractility, the possibility of the doctrine of a post-mortem, vital capillarity, flashed across my mind.

(Various co-ordinating phenomena were subsequently noticed, particularly post-mortem caloricity, the laws of which are so peculiar as to constitute a distinct branch of thermotics.) Are not hæmorrhages in yellow fever due to capillary congestion? &c. (Many other passages of similar date and import might be copied from the originals, which are open to any one).

PATHOLOGY AND PRACTICAL MEDICINE.

ON THE QUESTION WHAT ARE THE THERAPENTICAL RELATIONS OF PAIN? By Prof. J P. HARRISON.—*First*, Artificially induced, it subserves four ends in our methodus medendi. As an urgent derivative, in intestinal irritation, spasms, &c.—as an excitant in low conditions of the system, as a counter-irritant in neuralgic maladies, and as an effective mode of removing narcotism.

Nature institutes pain, remedially and beneficiently for the following ends.

First.—To give alarm to the system on inroads made upon her integrity, as in accidents, &c. Pain is essentially conservative in its operation.

Nature institutes pain as a safeguard to her rights, for could mutilation be unaccompanied by pain, in man as in the lower animals, in how insecure a state would the integrity of the organic structure be placed? Pain, then, is conservative; it is a wise provision of nature for the preservation of the body. But pain is likewise restorative—the pain from an injury, a burn, or contusion, is restorative; it causes the blood to flow to the part, and thus reparation is induced.

The pains of parturition are evidently designed for three purposes.

First, To rouse the female to her utmost co-operation in favoring the expulsion of the fœtus.

Second, The paturient pains oblige the human female to place herself in such circumstances as shall best answer the high design of her august mission—as the source of the intelligent creation.

Third, The fond endearment of the mother to the offspring is greatly enhanced by the recollection of her travail.

Pain is curative in another point of view—the actions of life are maintained by it:—were it not for the stimulation induced by pain, surgical operations would more frequently be followed by dissolution. Where a limb is crushed pain may be slight, constitutional irritation is very apt to carry the patient off. In extensive burns the pain is very disproportioned to the deep and irrecoverable prostration. Tetanus rarely ensues upon injuries where pain is experienced in a degree proportioned to the nature of the accident.

The modes of preventing, suppressing and extinguishing pain, when judiciously prescribed for, are to be correspondent to the nature and seat of the offending cause. Thus, in simple neuralgic pain we may use narcotic, or administer ferruginous preparations; in sympathetic pain we correct the state of the organ originating the pain. Gastric sympathetic irradiation to the head is very common. In such cases we give emetics, or alterant purgatives. Inflammatory pain must be relieved by depletory measures. Febrile pains are relieveable by the various measures employed to remove fever.

Coma, asphyxia and syncope prevent the realization of pain. But coma, whether dependent on vascular repletion of the nervous centers, or upon deep prostration, is certainly a more alarming state than the presence of pain. Asphyxia is a still more dangerous condition, and syncope is but an image of death itself, and may terminate in that catastrophe.

Artificially, pain may be suspended by narcotism; thus opium, given in full doses, induces a relief of the most violent agony. When medicine acts as an assuager of human suffering, it wisely and humanely interposes opium as the *magnum dei donum*. But to endeavor to extinguish the pains of parturition by opium would be to run athwart nature, and seriously jeopard the well being of the patient and her offspring. To narcotize away the pain of pleurisy would be mischievous interference.

To apply soothing applications to the head in a case of gastro sympathetic pain, or to the right shoulder in hepatic disease, would evince rather a weak diagnostic skill. Other agents besides opium have been employed to procure mitigation of human suffering from pain. Thus intoxicating beverages will bring about the same result. The rapid gyratory movements of the patient, by placing a person horizontally on a large millstone, and putting it in rapid motion, will act in the same way as opium.

Within a short period the vapors of sulphuric ether and of chloroform have been employed to effect this purpose. The phenomena which accompany, precede and follow, their inhalation, show that the nervous system is much affected; the brain is directly influenced; the blood is slightly altered in quality, and the action of the heart disturbed.

The points involved in their administration are four:

1*st*. Is it safe to administer them.

2*d*. Is it conducive to the ultimate well being of the patient; or is the restoration of the patient jeoparded by their exhibition.

3*d*. Admitting that their agency is not hazardous in any respect, can we suppress pain in operations with entire safety; and

4*th*. Admitting it proper, in every sense, to suppress pain by their administration, is there not a strong liability that surgical interference will be directed towards the use, or abuse of the knife, rather than to the prevention of the necessity of mutilations by the Ars chirurgica?

And lastly, are we justified, in ordinary cases of parturition, in the use of ether or chloroform inhalation, knowing, *as we now do know*, that such a procedure is not altogether unaccompanied by danger, and that death may ensue upon the practice?

PSEUDO-APOPLEXY WITH PERMANENT SLOW PULSE.—By DR. CAIN, Physician to the Marine Hospital, Charleston, S. C. Dr. Cain, in the Charleston Medical Journal and Review for May, has given some observations on this subject, together with remarks on a case of his own, and the cases which he has found recorded. In speaking of the recorded cases he says :—

On a careful analysis of the cases detailed by the physicians mentioned at the beginning of this article—to which I refer, as they cannot be here transcribed—as well as of that which fell under my notice, the conviction forces itself upon the mind that the pseudo-apoplectic or syncopic attacks, with permanently infrequent pulse, were due to certain pathological states of the heart and brain combined; a formidable train of symptoms being referable to the affection of the heart; a lesser, but equally well marked, to that of the brain. In Dr. Stokes' cases there was a co-existence of weakened state of the heart with murmur of the aortic valves accompanying the first sound. In one of Mr. Adams' cases, in which there was fatty degeneration of the heart, there were four pseudo-apoplectic seizures; in another, communicated by Dr. Duggan, twenty distinct attacks were observed, and after death both ventricles were found in a state of fatty degeneration, and the valves of the aorta studded with specks of bone. In a third, there was lesion of the aortic orifice, and remarkable softening of the left ventricle. The *post-mortem* examination of the Earl of K. published by Dr. Law, revealed a thickened and partially ossified state of the valves of the aorta, in consequence of which they could not effectually have closed the orifice; the left ventricle was in all probability weakened. In Dr. Lee's case an examination was not permitted, but there existed, without doubt, if not fatty degeneration, at least an excessive deposite of fat about the heart. In the case which I have detailed, there was a combination of pathological states—compression of the great vessels and of the heart itself by the large quantity of fluid effused in the pericardium, and softening of the muscular substance of the ventricles—either of which was adequate to induce an attack. In other cases of fatty degeneration of the heart recorded by Drs. R. W. Smith and Carmichael, of Dublin, there was permanently slow pulse.

It would seem, from a consideration of the above cases, that any cause existing in the heart or its appendages, which tends to impede or impair its action, may give rise to pseudo-apoplectic or syncopic attacks; such are, atrophy of the heart; fatty degeneration; simple softening; effused fluid, operating mechanically; permanent potency of the aortic valves, &c. Now, although the pathological states of the heart differ in these cases, the effect on the brain is the same, viz : the impairment of its power by reason of its not being supplied with a due quantity of blood. That such is the state of the brain, and not one of congestion, as has been maintained, I think susceptible of proof; and it is a subject of importance on account of the therapeutical inferences deducible therefrom.

PATHOLOGICAL CONDITIONS OF THE ARTICULAR CARTILAGES.—By JOSEPH LEIDY, M. D.—As the articular cartilage contains no blood-vessels, so it is not liable to inflammation; but we frequently find cases in which there is an appearance of ulceration or corrosion of the surface of less or greater extent, or it may present numerous minute disconnected fibres, projecting from the surface of the bone, like the pile of velvet, or it may be entirely removed. All these changes may take place from either surface of the articular cartilage. The most prevailing opinion among pathologists of the present day is that these changes are the result of solution generally in purulent matter; and from the observations of Cruveilhier, it appears they are more rapid if the fluid acting upon the cartilage is in a state of putrescence. While the cartilage is bathed in pus, from the catalyso-disorganizing nature of the latter, it may be gradually corroded away from the surface, and from an exosmotic current of the seroid fluid of probably modified pus (scrofulous) filaments may be dissolved out and cell groups detached, or probably disorganized and dissolved out, leaving the remainder of the cartilage in the form of a layer of disconnected filaments, like the pile of velvet, as already alluded to. Should the pus or other catalyso-disorganizing fluid (modified synovia) become putrescent, then must the destruction of the cartilaginous structure be necessarily more rapid, not only from the same action being instituted in the molecules forming the surface of the cartilage, but from imbibition; it will also set up the same action interstitially, and will be aided by the death of the life centres, the cartilage cells, for putrescence is ever deleterious and destructive to cell life. Even the infusorial animalculæ and algous plants, which are generally believed to thrive most in water with putrescent organic matter, with the exception probably of Monads and Vibrios, are absolutely destroyed by it; and it is not until the putrid exhalations cease, that they become developed within the fluid. So long as a lamina of cartilage is left upon the surfaces of the bones of a joint, and the life of the cartilage cells be not destroyed, it is probable there may be the power existing of a very slow regeneration of lost substance but if the cartilage be entirely removed, as the agents of its formation, the cells, are gone; there can be no restoration. If the bony surfaces be exposed, and pus or other catalyso-disorganizing fluid be present, the destruction of the bones is the result; if the formation of such fluid cease, and what has been formed is removed, and effusion of fibrin from the vessels of the osseous structure takes place from subsequent organization and deposit of osseous salts in the latter, we may have anchylosis, or irregular exostoses. If fibrinous matter be not effused, from the movement of one bony surface upon the other, the excited vessels of the osseous structure may deposit a lamina upon the rubbing surface as hard as dentine, and which from continued friction becomes highly polished.

In the rupture of an articular cartilage it is said the fragments never unite, which fact was formerly frequently advanced in support of the non-organization of the tissue. Muscular substance, when destroyed by violence, is not restored; a lichen cut into two will not unite at the edges; nor will algous plants unite when divided. The nutrition of the parts continues, as is the case with the fragments of the articular cartilage, but as well almost might the two opposed surfaces of articular cartilage unite in a joint in which there is little motion, as for the two broken edges of one to do so.

When granulations occur upon the surface of an articular cartilage, which is extremely rare, they arise probably from the effusion of fibrin from the circulus vasculosus of the joint extending upon the surface of the cartilage and agglutinated to it.—*Amer. Jour. Med. Sci. for April.*

On the Effects of Chloroform as a Narcotic Agent. By John C. Warren, M. D.—Dr. Warren, in the American Journal of Medical Science for April, has given an elaborate paper on this subject. In this paper, is posted up all the principal facts relating to the cases of death from Chloroform, which, up to that date, have occurred. In speaking of his previous expressed opinions on etherization and the relative value of the two agents, (ether and chloroform,) he sums up the matter by saying :—

1st. That my confidence in the beneficial effects of ether, in surgical operations, is undiminished (but, if I were compelled to substitute chloroform, I should do so with much anxiety).

2d. Etherization is not, I think, employed so extensively as it was during the period of enthusiasm following the first inhalations of ether. The occurrence of fatal cases of chloroform has done much to cause a diminution of the use of ether; and the latter article has not been free from the charge of pernicious consequences. No fatal case from its use has transpired, however, in this country, or in Great Britain, so far as we know. One well authenticated instance only has occurred in France. The details of this case I am not able to give, further than to say, that the patient was a male, resident in Auxerre, about forty years of age, who underwent an operation for cancer of the breast, and died in ten minutes. It really seems wonderful that a greater number should not have followed the immense and ill-directed use of this powerful article.

3d. Chloroform, or ether, is used in this part of the country in all capital operations; and, I believe, pretty generally in such operations in other parts. In parturition, also, the former is extensively employed here; but a considerable number of practitioners use it rarely, and only in cases of extreme suffering. The relief from pain is uniformly said to be great; but whether the patient does as well, on the whole, after this narcotism, is a doubtful point with me, confiding, as I do, in the power of nature to render this process generally perfect without the aid of art. In surgical operations there is every possible evidence that the chance of success is not diminished by etherization."

The following are the means which he suggests for removing the bad effects incident to the chloroform and ether practice :—

Means of remedying the bad effects incident to the chloroform and ether practice.—1st, To use chloric or sulphuric ether, for the purpose of producing narcotism in surgical operations, in preference to any other agent; 2d, not to use narcotism for trifling operations; 3d, where the operation is not very severe and prolonged, to produce only that degree of narcotic influence which destroys the susceptibility to pain, without abolishing the intellectual function; 4th, to be careful that the patient does not get an exclusive inhalation of the narcotic vapor, but obtains with it a sufficient quantity of atmospheric air to carry on the oxygenation of the blood; and when he is severely affected by the first impulse of this vapor, not to press it too harshly upon him; 5th, when a powerful application is required, as in cases of the reduction of hip dislocation, the patient should always be bled before etherization; it is very desirable that a powerful narcotism should never be produced without previous abstraction of blood, except in cases of great debility; 6th, the respiration and pulse should be carefully watched during the whole operation, by one in whom the operator can confide; 7th, when the pulse intermits, and respiration is suspended, inhalation should not be continued; 8th, the position of the body does not appear to exert a particularly unfavorable influence; of the fatal cases, five occurred in the sitting posture, three in the horizontal, and one in a state of flexion forwards on a table. 9th, whenever etherization is to be accomplished, there should be a sufficient number of assistants present to guard the patient if he should become violent; 10th, the exact quantity of ether inhaled has not appeared to me important. I have used it freely in a sponge or cloth, with the precaution above mentioned, of not applying it so closely as wholly to exclude atmospheric air. The fatal effects of chloroform, in almost every instance, have been produced by very small quantities; 11th, to protect the face a small towel is folded in a funnel-like shape, in the apex of which is placed a sponge, double the size of an egg, charged with an ounce of chloric ether, or the liquid may be poured directly on the interior of the cloth; 12th, chloroform, or ether, should not be administered in cases of epilepsy, of active organic disease of the heart, of acute affection of the lungs, or in a hemorrhagic tendency of these organs.

EPIDEMIC DYSENTERY SUCCESSFULLY TREATED BY NUX VOMICA.—By W. M. CORNELL, M. D.—Dr. Cornell reports having treated ten cases of this disease with Nux Vomica with uniform success. He acknowledges his indebtedness for the suggestion to Dr. Armstrong who states that Vaux, of Ipswich, in the course of sixteen years treated with strychnine about two hundred cases with remarkably uniform success. Dr. Cornell says, "I gave it (Nux Vomica) in the full dose of seven grains, thrice a day, to adults, and from one to three grains to children, in proportion to age. The result was most happy. Not a patient who was treated with this medicine died. It was prescribed in ten cases within three or four weeks, and all recovered. No cathartic medicine was given except teaspoonful doses of the *bitartrate of potassa*, in a few cases. * * * * * * I am far from having much confidence in *specifics* generally, but I feel constrained to say that the above named medicine altogether exceeded my expectations, and I earnestly recommend a trial of it in dysentery."—*Charleston Med. Jour.*

THE HEART CLOT. By Professor C. D. MEIGS.—The Medical Examiner for March contains some observations on this subject. Dr. Meigs believes that the coagulability of the blood after great hemorrhage is augmented, often dangerously. In cases of severe hemorrhage, after labor or in abortions, the loss of blood produces a tendency to fainting, the motions of the heart are enfeebled, the diastole slow—torpid, for the blood moves languidly in both the venæ cavæ, pours itself out in a slow current into the auricle, which it sluggishly distends, and sometimes is there instantly converted into a solid clot. If a clot be formed in the right auricle, it will also be formed in the *iter ad ventriculum dextrum*, filling up the cone of the tricuspid valve; and the nucleus of it will cause the coagulation at length to occupy the cavity of the right ventricle, and extend itself to a greater or less length along the trocter of the the pulmonary artery. If the whole pulmonic side of the heart should be perfectly occupied in this way, the death of the individual would be instantaneous; and he doubts not that many examples of sudden death, after delivery in hemorrhagic labors, are produced by the formation of cardio-morphous coagula, which form in the instant of a state of fainting or lipothymia. He has not the least confidence in the power of alkaline medicines to dissolve such coagula, nor does he admit that the dull, white endo-cardial coagulum, so often discovered, is the result of a state of endo-carditis; but attributes its occurrence to a temporary stasis or near approximation to stasis, during a state of fainting in an exhausted patient.

FOREIGN SUBSTANCES IN THE HEART.—By JOHN NEILL, M. D.—Upon the dissection of a black male subject, brought into the anatomical room about the middle of December, my attention was directed by a student to a foreign body in the heart. At first I supposed that it might have been introduced after death, accidentally dropping into the cavity of the pericardium during the process of stitching after injection; but upon more careful examination of the surface of the heart, no orifice was detected by which it could have entered. I removed the heart and placed it in alcohol, in order to examine it with care.

The pathological condition of the cogtiguous viscera could not be made out very satisfactorily, on account of the length of the period which had elapsed since death, and from the fact, that an antiseptic injection (chlor. of zinc) had been used, which destroys color, and coagulates albumen; there were, however, marks of chronic disease evident, in adhesions of the pleura and serous pericardium; there was also evidence of peritoneal inflammation.

After the heart had been hardened in alcohol, and cleanly washed of clots, I found imbedded in the external wall of the left ventricle a broken needle, with its point directed forwards towards the apex of the heart; it was much oxidized, and could not be moved from its position until the cyst containing it was split up. The broken end encroached upon the cavity of the ventricle, being actually contained in one of the columnæ carneæ; the needle was two inches in length, and a line in thickness, belonging to a variety called *worsted needles.*

Note.—I learn, through the politeness of Dr. Klapp, physician to the Moyamensing prison, that this man was admitted May 11th, 1847, in rather feeble health; but continued to work for more than a year before complaining of any inconvenience about his chest. When removed to the infirmary he had severe cough, with some slight constriction in breathing, and occasional palpitation. These symptoms, though never very urgent, continued until his death. Though never delirious, and able to answer questions to the last, he never spoke of having received any injury of the kind, and had never manifested any suicidal tendency.—*Med. Exam.*

Pathological Anatomy of Cholera.—*Autopsy of* 18 *cases.*—By A. Hester, M. D.—*In the thorax,* the lungs were of a pink color, always collapsed, with the exception of three cases, where existed morbid changes anterior to death by cholera. The blood found in them was very dark. In six cases there was a good deal of mucous in the larger bronchi. The chambers of the heart were invariably dilated and filled with blood, the right auricle remarkably so. The vena cava likewise. In three cases, examined three hours after death, there were, on the external surface of the heart, several reddish spots somewhat resembling ecchymosis.

In the abdomen, the stomach was, in five cases, intensely inflamed, the mucous coat was soft, and had *le couleur de lie de vin,* and there was a quantity of fluid resembling the black vomit of yellow fever. In twelve cases the traces of inflammation were not so intense, and the fluids appeared of a yellowish-green color. The mucous tissue of the intestines was pulpy and thickened. In four cases there was evidence of violent inflammation, extending the whole length of the smaller intestines, and involving the ilio-cœcal valve. In nine cases this appearance was less evident. In five the mucous tissue was bleeched, anæemic, strongly contrasting with the condition of the others. The glands of Brunner were plainly visible—those of Peyer were sallient, pulpy, red and softened. The solitary glands were larger than natural, and easily distinguishable in the whole of the intestinal tube. In it there was to be found at times, a turbid, at times, a transparent, whitish fluid, with shreds floating in it, whiter than the fluid itself. This secretion was tested, and albumen was always found in it.

The Liver was in a few cases much engorged, in the majority, however, it was not so, and its appearance was healthy withal.

The Gall Bladder was always found distended with bile, and its ducts pervious to the air blown from the fundus of the bladder into the intestines.

In the Kidneys and Spleen there was no apparent change.

The Bladder was very much contracted. In three cases there was in it a few drachms of liquid closely resembling that found in the intestines.

The Veins within the abdomen were distended with dark blood.

The Brain appeared healthy—to the touch it seemed firm, even more so than usual. Its serous membranes felt very dry, pasty—it was even so in the thorax; it was so in the abdomen. The veins were in some instances much distended, sometimes not. In two cases there was some effusion in the lateral ventricles.

The Spinal Cord, as examined in sixteen of the cases, offered no remarkable change. However, in eight, air blown in the sub-arachnoidean space showed several distinct adhesions between the cord and its serous envelope. There was less sub-arachnoidean fluid than usual, in some cases it was almost wanting. In two cases there seemed to be a partial softening of the medulla, on a point corresponding with the 9th Dorsal Vertebra.—*New Orleans Med. Jour.*

Observations on Erysipelas.—By S. M. Tweed, M. D.—Dr. Tweed, in the Ohio Medical and Surgical Journal, has detailed the history and treatment of several cases of Erysipelas. He closes his observations by saying that—

From considerable experience and observation with regard to this malady, my own mind is strongly impressed with the truth of the following propositions:

1. That erysipelas is contagious—not to any considerable extent—but sufficiently so to entitle it to a classification with contagious diseases.

2. That long watching, grief, anxiety, and all the depressing passions, are predisposing causes.

3. That it has a certain course to run, and cannot be *cut short* by any local or general treatment whatever.

4. That a judicious course of medication will greatly mitigate the disease, and aid materially in conducting it to a favorable issue.

5. That a tonic or sustaining course, after the third or fourth

day of attack, is imperiously demanded: especially is this true of œdematous erysipelas.

6. That the local application of iodine, acetate of lead, sulphate of iron, nitrate of silver and linear blisters, has no power whatever in *arresting* the disease.

7. That scarification is a remedy of great value in mitigating the sufferings of the patient, by relieving the highly congested capillaries of the affected part.

8. That the application of cloths dipped in cold water is a measure of equal value for the accomplishment of the same purpose.

SURGERY.

Amputation of the Leg.—*Patient aged* 102 *years.*—By R. Jarrot, M. D.—Dr. Jarrot, in the Charleston Medical Journal for May, has reported a successful case of circular amputation below the knee for senile gangrene on a negro patient aged one hundred and two years. The patient died between six and seven weeks afterwards, with pleurisy. Before commencing the operation ether was administered, but it produced no effect. Chloroform was then tried. It produced the most striking evidence of intoxication, as if from alcoholic drinks. Dr. Jarrot appends the following remarks to the history of the case:—

The stump having nearly healed at the time of his death, my conviction is that the fatal issue is to be attributed solely to the pleuritic inflammation; his debilitated state may have enabled the pleuritis to act with greater energy, and hasted his death.

All the difficulty, with regard to the stump, resulted from the pressure of the adhesive plaster on the end of the tibia. Under similar circumstances I would make the line of union of the flaps perpendicular, and should employ sutures, for I have seen adhesive plaster productive of great inconvenience, and even of serious evil, producing inflammation, suppuration, &c. The practitioner, who has many of the minor surgical operations to perform, will recognize the soundness of the views contained in Dr. Wragg's paper on the use of sutures, published in this journal, November, 1848. I have been thus minute, and I fear tedious in reporting this case, believing that, from the extreme age of the patient, it would be regarded as one of interest. The annals of surgery, doubtless, furnish cases in abundance where serious operations have been performed on old subjects, but I do not remember one where the age of the patient exceeded a century.

Case of Lithotomy.—117 *Calculi, weighing four ounces, successfully removed.* By Professor Paul F. Eve.—Mr. O'Bannon, in 1824, then aged eighteen, received a fall, by which his back was injured, and a difficulty in urinating produced, which has continued to increase. For the past two years, in order to pass urine at all, he had to assume the horizontal position, and push up the bladder with his fingers in the rectum. When sitting on the edge of a chair, a sensation was felt as of crushing a ball of snow in the perineum. On the 6th of last January the following operation was performed, chloroform being first administered. After the patient was placed in the usual position for lithotomy, an incision, about three inches in length, was made over the tumor situated in the perineum, as for the lateral operation, except that it was upon the right instead of the left side. About 56 calculi were removed through this opening, and it was hoped the operation was completed; but upon introducing a female cathetet through the wound into the bladder, a second collection of stones was readily detected in this receptacle. A grooved sound was now passed through the urethra, and the double lithotome conducted by it into the bladder; the former was withdrawn, and the bi-lateral section completed, by drawing the latter instrument out somewhat in the line of the external incision made in the skin. With the lithotomy forceps repeatedly introduced, by conducting it upon the finger, 61 stones were extracted from the bladder. Through the opening in the perineum a quantity of pus was discharged. During the operation the rectum protruded in a large mass, so as to interfere with lowering the handle of the forceps to seize the calculi in the bladder. The patient also had violent and involuntary contractions of the abdominal muscles, and during the latter stage of the operation the chloroform was discontinued. It lasted one hour. He was so reduced by his long suffering, a period of 24 years and 4 months, that after the operation I took him like a child in my arms and carried him up a flight of stairs to his room.

On analizing the calculi, the presence of phosphate of lime, almost pure, was revealed. The chemical elements were 3 atoms of phosphoric acid, 8 of lime, and one of basic water. The whole number of calculi extracted was 117, of which the largest weighed ʒ ij. and 38 grs.; the two next in size, each 78 grs. and the smallest 1 gr. furnishing an aggregate weight of ʒ ivss.

As usual with me, no dressing was applied to the wound, but the patient was requested to keep his knees together and to remain perfectly quiet. He took 40 drops of laudanum the night of the operation, and his diet was restricted to cold lemonade and flaxseed tea. He passed a pretty good night. Next morning some urine had even been already voided by the natural passage, notwithstanding the opening in the perineum. He has bathed himself in warm water; has now no fever, is quite cheerful, smokes his pipe, and has taken some soup, table tea and orange. Nothing but castile soap and warm water, several times daily, was afterwards applied to the wound.

On the 24th of January, i e. the 8th day after he was disembarrassed of his numerous calculi, Mr. O'Bannon returned home, a distance of 22 miles. The wound had nearly healed. He is to use, as a tonic, small doses of sulphs. quinine and iron.

A month after the operation a special messenger reports him entirely well.—*South. Med. and Surg. Jour.*

Lacerated Wound of the Finger.—*Death.*—By S. Sergent.—The death from lacerated wound of the finger illustrates the fatal results which sometimes follow slight injuries. Owen Nevins, aged 48, applied for admission Jan. 13th 1849, with a lacerated wound of the little finger of the right hand, caused by its being caught between two barrels. He was put to bed, the hand and arm elevated on a splint and cold dressings applied. Inflammation, attended by a great deal of œdema, but with little heat or redness, extended up the hand and arm, and the wound presented a sloughy appearance. Suppuration was first detected on the back of the hand, and a free opening was made to discharge the pus. Counter-openings was made in the palm and afterwards in the arm. In the meantime his general symptoms became very threatening; his pulse was feeble and frequent, his tongue dry and brown, and although tonics and stimuli were freely given, his condition was not improved. The punctures made to evacuate the pus ulcerated, and sloughing of the cellular tissue took place. Shortly after he had three attacks of arterial hemorrhage from the ulcerated openings in the arm, in each of which he lost a considerable amount of blood. It was deemed improper to amputate in his enfeebled condition. He gradually sank, and died Feb. 3d.

Upon examination after death, all the organs were found pale, but healthy, with the exception of the spleen. The spleen was enlarged, softened down to a reddish pulp, and contained numerous deposits of pus.—*Med. Exam. for March.*

Report of two cases of Tracheotomy in Children. By Professor Howard.—On the 1st of August, 1848, Levi Goodman, aged seven years, was brought to me from Perry, Franklin County, Ohio, with a foreign body in the trachea One week previous to this date, while lying on the floor with a small pebble in his mouth, on taking a sudden inspiration, the pebble slipped into his larynx. Immediately symptoms of suffocation ensued, and threatened speedy dissolution; but fortunately the stone passed into the trachea, which gave instantaneous relief. The boy now experienced no inconvenience except on coughing or taking exercise, then the spasmodic respiratory efforts would force the stone against the cricoid cartilage, and backward again upon the bifurcation of the trachea with great violence. The patient was placed in a high chair, with his head thrown backward, and held firmly by assistants. An incision was made from the cricoid cartilage to the top of the sternum, through the integument—the thyroid veins being drawn aside, the dissection was continued till the trachea was exposed. Here a hook was inserted into the cricoid cartilage, and drawn upwards by an assistant, for the purpose of tightening the windpipe to make it more prominent and manageable. A tenotomy knife was passed through the rings of the trachea at the lower part of the wound, and the section was completed by a small probe-pointed bistoury. As soon as the bistoury was withdrawn a convulsive cough expelled the pebble with great force. At the commencement of the operation the boy evinced great alarm from it, but as soon as the foreign body was expelled, he looked up in my face, and cried out indistinctly, "It didn't hurt me a bit." This would have been a strong fact in favor of ether, chloroform or mesmerism, if either had been used. The wound was drawn together firmly, as soon as hemorrhage ceased, by adhesive strips. Adhesion followed immediately, and the boy was perfectly well in three days.

Sept. 6th, 1849, Edmund C. Peel, aged 18 months, was brought to me from Madison Co. Ohio, on account of what was supposed to be a piece of the rind of a watermelon in the windpipe. On coughing, the concussion of the foreign body could be distinctly heard against the cricoid cartilage and tracheal bifurcation alternately. Tracheotomy was advised and consented to. The operation was attended with some difficulty, from the excessive struggling of the child, and the large amount of adipose tissue about the neck. It was completed, however, in about ten minutes, and a watermelon seed was removed from the trachea. The subsequent treatment was precisely similar to that adopted in case first, with the same results.

Remarks.—The principal difficulties in the way of tracheotomy in children are, 1st. the great depth and small size of the tracheal tube. In childhood it lies like a small whipcord, loosely embedded in the soft tissues, so that when sought it is extremely liable to elude the knife, which if carelessly and unskilfully used, will pass downward beside the trachea, and wound important parts. With ordinary care in the hands of him who possesses a sufficient amount of anatomical knowledge, such a mistake is inexcusable. 2d. The thyroid veins are directly in front of the trachea, and if wounded will afford troublesome hemorrhage, and *may* admit atmospheric air, and in this way destroy the patient. They should be drawn aside, and never cut. 3d. If the trachea is not divided to a sufficient extent, the body will not be ejected, and a search for it with probes and forceps to facilitate its expulsion, is worse than fruitless. There should be a free division of the tracheal rings, avoiding of course the isthmus of the thyroid gland, and the foreign body will be spontaneously expelled, almost without an exception.—*Ohio Med. Surg. Jour.*

GUNSHOT WOUND.—*Ball in the hip thirteen months.*—By Prof. G. KIMBALL.—George Church, a soldier of the Massachusetts Regiment, during the late campaign in Mexico was shot down in the battle of Molino del Rey, on the 28th of September, 1847. He was taken into hospital the evening of the same day, and fell under the charge of one of the chief surgeons, Dr. Satterlee. It was found, upon examination, that a wound had been received in the hip—that a musket ball had entered just anterior to the great trochanter, and made its way, apparently upward and forward, towards the anterior superior spinous process of the ileum. Attempts were immediately made to extract it, but they were unsuccessful. The wound healed very slowly, and it was not till nearly the end of five months that he was able to leave the hospital. He then returned home to Massachusetts, and gradually became so far restored as to be able to engage moderately in the common duties of farming. In the course of a few months after this, some ten months from the date of the wound, he was seized with a violent paroxysm of epilepsy. Three weeks after he was seized with another, still more violent; and thus they continued returning at intervals of every two or three weeks, till the latter part of October, 1848, when, at the suggestion of Dr. Guiteau, of Lee, his attending physician, he came to Pittsfield for the benefit of a surgical consultation. The result of this consultation was an unanimous conclusion that the epilepsy had been induced by the wound in the hip; that a ball or some other foreign body, lodged there at the time the wound was received, was implicating some important nerve, and an operation, with the view of its dislodgment, afforded the most reasonable chance of relief. This operation, however, was not pressed with much earnestness. The efforts of the army surgeon, to the same end, had proved abortive in the first instance; and the present circumstances of the case certainly gave no very flattering assurance that a second attempt would be more successful. However, the proposition was readily embraced by the patient, and the operation accordingly performed on the 28th of October.

A fistulous opening, sufficient to admit a common-sized probe, indicated the original course of the wound, to the extent of some three inches, and in a direction, as before stated, towards the anterior superior spinous process of the ileum. As a most critical examination of the parts had hitherto afforded no idea of even the probable location of the ball, it was thought best to endeavor to reach it by tracing, if possible, this fistula through its entire course. A grooved probe was accordingly introduced, and pushed forward till it came in contact with the surface of the ileum. Upon this, a straight bistoury was introduced to the same extent, and the fistula, thus far, laid freely open Its further continuation and direction were now detected, though with difficulty, from its course having been so entirely changed. A long probe being introduced into this new branch of the fistula, it was made to pass some eight inches backwards and downwards, making its way along the surface of the bone, just under the crest of the ileum, till it reached the ischiatic notch, when it fell directly upon the ball, which was situated, it would seem, very near to, if not in contact with the sciatic nerve. An attempt was now made to bring into service the ball forceps; but the length, the narrowness and unyielding callous walls of the fistula, rendered them quite useless. It seemed necessary, therefore, to lay open this passage still further, and it was accordingly done to the extent of some five inches. Again the forceps was introduced, the ball readily laid hold of, and a good deal of force applied; still it refused to yield. A bistoury was now passed into the bottom of the fistula, and the callous tissue immediately embracing the ball carefully divided at several points, so that, upon a third application of the forceps, it was brought away with comparatively little force.

This operation, undertaken with a good deal of reluctance, and, in view of the circumstances of the case, with serious misgivings as to its success, has been most satisfactory and gratifying in its results. From the day it was performed to the present time there has been no return of epilepsy; and the patient's health, which had previously been most seriously impaired, has now become so far restored as to make it safe to pronounce him perfectly well.—*Bos. Med. and Sur. Jour.*

DEATH FROM A FOREIGN BODY CUTTING FROM THE PHARYNX INTO THE LARYNX, by Prof. P. F. EVE, M. D.—On Saturday, 15th June last, a colored boy, aged nine years, while taking beef-soup had a piece of bone stick fast in the throat. Efforts were immediately made by the family to dislodge it, and these were subsequently directed by two skilful physicians of the village where the accident occurred. The means employed consisted of emetics, the forceps, probang, &c. These attempts having been unsuccessfully renewed the next morning, the little patient was sent, with his mother, to me, a distance of twenty-five miles. They arrived at my office at 4, P. M. being about twenty-eight hours after the foreign body was arrested in its passage to the stomach.

At this time there was considerable hoarseness, besides the difficulty of deglutition. The patient had slept some the previous night, and had also swallowed a little water since the efforts made to relieve him. His mother said the foreign body could be felt by the tip of the finger while the mouth was forcibly opened—at least so she had been informed by the physicians. There was now no cough, neither had there been at any time. By thrusting the fore and middle finger deep into the pharynx, the sharp, rough, projecting edge of a piece of bone was reached, but which occasioned an instantaneous and spasmodic action in the muscles of the part, but which excited no cough. The forceps, and other instruments were now directed against this foreign substance, and it was supposed to have been seized more than once; but after an hour's persevering endeavour to remove it, the case was abandoned for the present. It was only while the patient was firmly held, and the mouth forcibly opened, (for he was too young to be persuaded to submit quietly,) that these attempts for its extraction could be made.

After these latter efforts the patient never swallowed, not even iced water, and his respiration became more and more embarrassed. He passed a bad night, and seemed much exhausted the next morning. Indeed, it soon became apparent, that without relief he could not long survive. Drs. Newton, H. F. and R. Campbell, and Dr. Barry saw the patient at 12, M. and I was engaged in carrying out our decisions—viz. to make one more attempt to extract the bone, and should that prove, like the others, unsuccessful, then to open the pharynx—he expired. A new pair of forceps had only been directed to the foreign body when he breathed his last. The larynx was now laid open, and a silver tube introduced into it encountered something foreign. Tracheotomy was next performed and artificial respiration attempted for half an hour. The heart continued to act, but respiration was not re-established.

Death having thus occurred, the wind-pipe was freely exposed, when a piece of bone was found projecting into the larynx below the rima glottidis, and extending thence through its posterior wall into the pharynx. It was the outer lamina, thin, sharp, having jagged edges, and of an oblong shape. It measures one inch by half an inch. The irregular, serrated edges, particularly on one side, explains the difficulty in removing this foreign substance; and its thin, sharp extremities, the facility with which it cut its passage from the pharynx into the larynx. Did not the means employed produce or promote the entrance of this foreign body into the windpipe? He evidently died from exhaustion, the result of the treatment pursued in the case, and the interference to respiration by the presence of the bone in the larynx.—*South. Med. Surg. Jour.*

MIDWIFERY.

Remarkable Case of Extra-Uterine Pregnancy. By F. H. Gordon, M. D.—The patient, a negro woman, was taken with symptoms of labor about the middle of June, 1848; Dr. White was called to attend her. Examination proved that she was in labor, about six months advanced in utero-gestation; and that a body of considerable size was in the pelvis, between the vagina and rectum, on which the pregnant womb pressed with considerable force. Careful investigation satisfied Dr. White that the tumor in the pelvis was an extra-uterine fœtus, and that it so completely blocked up the pelvis as to render the delivery of the normal child impossible, unless by a previous operation and extraction of the abnormal tumor. He ordered quietude, gentle laxatives, and morphia so repeated as to keep down the action of the uterus.

On the 16th of July, Dr. B. R. Owen and myself visited the patent with Dr. White. She still suffered of some paroxysmal action of the womb, which had returned almost daily since Dr. White's first visit. The portion of the tumor, which might be taken for the feet, presented down against the perineum, and the head reached up to the posterior part of the superior strait. Between the head and pubis there was not more than one and a-half or two inches space. With difficulty the finger could be passed up here to the womb, the mouth of which was resting on the head of the extra-uterine fœtus. We fully concurred with Dr. White, and advised an operation to be performed at the seventh month, or as soon as the energetic labor might require it.

While the persons interested were making up their minds on the subject of an operation, active labor set in. On the 20th July, Dr. W. W. Blythe, Dr. Owen and myself obeyed the summons of Dr. White. The labor was violent, the liquor amnii having been discharged. Dr. Blythe believing, like the rest, that the woman must soon perish in the absence of surgical aid, the operation was performed by the three named practitioners and myself, by candle-light.

An incision was made with a sharp pointed scalpel (wrapped within an inch of its point) by carrying it upon the left index finger an inch and a half above the middle space between the neck of the womb and perineum. Its edge being turned downward, *an incision was made quite through the posierior wall of the vagina, in the middle line, downward for about three inches.* The fœtus could now be felt, but no evidence could be obtained as to its connexions with the mother; nor could the finger raise it from its position. The fœtus having performed an evolution since the 16th, and its head now being at the perineum, obstetrical and other forceps were applied, and repeated efforts made to extract, but to no purpose. The blunt hook, vectis, perforator, and lastly, a common gimblet were successively used without effect.

The incision was now extended half an inch both upward and downward, making it four inches. During each paroxysm of the womb, the tumor was pressed firmly down against the perineum; and advantage was taken of this circumstance.

The right index finger was passed into the rectum, while the left was carried through the wound, and by applying the fingers like the blades of forceps on either side of the neck of the fœtus, it was raised from its bed into the vagina, just as a paroxysm was coming on, and the violent efforts of the womb instantly expelled it beyond the vulva.

The nature of the attachments which had so long delayed the extraction was now revealed. Three ligaments, in a state of tension, were seen extending from as many points of the fœtus towards the upper and posterior part of the pelvis. One of them had the appearance of the remains of the umbilical cord, being rather tendinous; the othe rtwo were fleshy, and covered by the smooth peritoneum. These ligaments being so much on the stretch, held the fœtus firmly against the vulva, and blocked it up so as to prevent further exploration till they were divided. A tape ligature was passed around each of the fleshy ligaments at their fœtal extremities, and they were divided. By holding the tape with the left hand, the right was passed along the ligaments through the incision; and it was ascertained that these ligaments, which were nearly round at their fœtal ends, became flat and widened backwards till they united to form a fleshy feeling mass about five inches in diameter and one and a half inches thick. It was attached to the posterior wall of the pelvis, at, or above the superior strait, nearest the right side, with its base transverse. The atrophied umbilical cord was also attached to this mass.

To avoid the hemorrhage and inflammation which would likely follow the extirpation of this fleshy mass, it was left undisturbed. The tapes were removed from the ends of the ligaments, and from their having been for sometime strangulated, they bled but little, and were returned through the incision. No means were required to retain the lips of the wound in apposition.

The labor ceased as soon as the operation was completed. Gentle laxatives and quietude were prescribed, and the patient was left to await nature's efforts. On the 22d, 10 o'clock, A. M., the pains returned, and in less than two hours the child was born and complete delivery accomplished by natural and easy labor. The child lived only three hours. No untoward symptoms presented; no hemorrhage—no great prostration. The child passed through the pelvis without injury to the wound, or any hindrance from the fleshy mass. Two hours after delivery, the hand in the vagina ascertained that the fleshy mass had receded upward so as not to be in reach, and that there was no unusual heat in the wound.

The incision healed by the first intention, and the patient recovered as rapidly as is common after ordinary labors. She is now (25th August) apparently in perfect health; and has been performing active manual labor for more than two weeks.

The extra-uterine fœtus, as is usual in such instances, is not well formed. The frontal, parietal, and occipital bones of the cranium, the scapulæ, innominata, one fore arm and one leg are tolerably well formed. The other parts are ill defined or irregularly shaped. The hair is plain upon the head. The whole fœtus is an agglutinated cartilaginous and osseous mass, covered by a smooth glistening, serous-like skin. Its dimensions are: from vertex to forehead 2¾ inches; biparietal diameter 2½ inches; from shoulder joint to shoulder joint 2 inches; from vertex to termination of the coccyx 5 inches.

The following is the history of the case as given by the patient, the family and others. About twelve years and two months previous to the operation, that is in May 1836, the woman became pregnant. Soon afterwards her attention was called to a *stinging* sensation in the right iliac fossa, about one inch from the anterior superior spinous process of the ilium. Here a tumor was soon perceived about the size of a plum. It enlarged, and the stinging became absolute pain, to the seventh month of gestation, when it ceased to grow. From the fourth to the seventh month the fœtus in the womb was frequently felt to move; but from this time its motions ceased, and it was believed dead. The abdomen became tensely swollen, and the woman's health rapidly declined. She was ultimately delivered of a still born child; but the tumor in the side remained stationary in size and proportion.

The patient's health now improved, and she gave birth to a healthy child in the spring of 1838. Since that time she has been delivered of four other children. The tumor remained permanent in the right side, giving occasional pain or uneasiness, till about the period of quickening with the 6th child, that is, about three months previous to the operation, and nearly twelve years from its conception, when it descended into the pelvis. From its new location, it caused much constitutional disturbance, frequent efforts at abortion, and an inability to evacuate the bowels, otherwise than by the patient's passing the finger into the vagina and holding up the tumor, so as to remove the pressure from the rectum.

She has now fourteen living children; nine of which were born previous to the exta-uterine conception, and five since. Add to these the still born child, the one born on the 22d July last, and the extra-uterine fœtus now in this town, making in all seventeen. The woman is forty-one years old, and her health is apparently good enough for her still to give birth to several more children."—*West. Jour. of Med. & Surg. for Oct. p.* 277.

ADVANTAGE OF TYING THE UMBILICAL CORD BEFORE DELIVERING THE HEAD AFTER TURNING. By J. S. UNZICKER, M.D.—I was sent for by a midwife to see Mrs. A——, aged 34 years, and in labor with her second child, at 6 o'clock in the evening. Pains continued at regular intervals, with presentation of the right arm and face, the liquor amnii having already escaped at 5 o'clock that morning. I concluded at once to turn according to Dr. Wehn's method. Placing the woman, therefore, in the knee and elbow position, the actual labor pains ceased, but after introducing the hand, although the foot was more easily found than in turning after the old method, a great difficulty existed in turning, on account of the uterus being firmly contracted around the child, and not a particle of liquor amnii present; but by careful manipulation, I succeeded at last in overcoming this tonic contraction of the uterus, and brought down the foot.

The woman being then placed on her back again, the regular pains returned, and as soon as the umbilicus came within reach, I ordered the midwife to tie the cord; and although the delivery of the head was delayed some time, the child was born alive.

This is the second case I have had within a short time, in which I resorted to the above method with success, and hope that in future hundreds of children may be saved by this valuable discovery of Dr. Wehn's, which before were sacrificed through partial compression of the cord and consequent venous congestion.—*Western Lancet.*

On the Origin of Moles (*Germeu Falsum.*) By Dr. Lipscomb.—My object on the present occasion is to call the attention of the profession to the very frequent occurrence of moles in connection with *protracted lactation.* Can it be a mere coincidence of circumstances? I think not. It is freely admitted that we sometimes meet with them under other and different circumstances, yet if my observation is correct, a very large majority of the cases occur in connection with, and as I believe, under the influence of unnecessarily prolonged nursing. To illustrate my precise meaning: A woman gives birth to a child which she nurses for ten or twelve months, and during this period the secretion of milk exerts so potent an influence on the uterus that the catamenia does not appear. But if I may be allowed the expression, the uterus refuses to remain dormant any longer, and the menstrual flux once more occurs with its wonted periodicity.—The nursing is continued, and often continued for no other purpose than the prevention of conception; but the object is in part frustrated, for under these circumstances conception does frequently take place. And I may ask how very often does conception under such circumstances prove an imperfect, blighted, or false conception? Might we not anticipate such a result; for although it may still be alleged that conception does not take place in the uterus, yet all perhaps agree that a vigorous and healthy condition of that organ is generally a necessary pre-requisite to the developement of a healthy fœtus. And I think this necessity is proved to be more apparent since the publication of Tracts on Generation, by Professor Bischoff, of Giessen, by whose experiments the old doctrine of ovarian conception is seriously invalidated, if not positively overthrown. You are doubtless aware that his experiments led him irresistibly to the conclusion that the mature ovum is discharged into the uterus at every menstrual period, and during its stay in that cavity is fecundated by the seminal fluid of the male. The strong and intimate sympathetic influence which continually plays between the uterus and the mammary glands, and *vice versa,* is well known. How frequently do we discover a deterioration of the mother's milk by its effect upon the health of her offspring, simultaneously with the recurrance of the catamenia. We have all witnessed this.

In a period of eighteen years, during which time I have been engaged in the practice of medicine, quite a considerable number of cases of mole, or false conception, have fallen under my observation; and without hesitation I assert that a large majority of the whole number have occurred in females who continued to nurse their children after the reëstablishment of the catamenia, and in whom this function was not reëstablished for ten or twelve months after the birth of their children. I have recently solicited the opinion of several of my medical friends whose opportunities for observing have been quite ample. Some of them are satisfied of the correctness of my opinion; others have not paid sufficient attention to the attendant circumstances of their cases to speak definitely on the subject.—*West. Jour. Med. Surg.*

Death During Labor, by Dr. Brickell.—Mary Morris, native of Ireland, æt. 19 years, quite robust, first pregnancy, entered Obstetric Ward, Charity Hospital, N. O. Jan. 22, 1849.

March 2d.—Labor commenced; was directed in the afternoon to lie quietly in bed, though matters seemed to progress very slowly. Had been quite well since January 22d, with the exception of slight soar throat about the 25th February.

At 3 o'clock on the morning of the 3d March the ward pupil was summoned to her bedside; he found labor apparently progressing rapidly; water evacuated, &c. &c. In a few minutes after his arrival, however, she was seized with violent convulsions, and expired directly. No attempt was made to save the child, either by section or turning.

11 o'clock, A. M. March 3d.—Was present at the post-mortem examination of the above patient. The face of the subject was quite livid; the tongue protruding slightly between the teeth; and bloody froth issuing from the mouth and nose. The womb was found pretty firmly contracted upon the fœtus—considerable left lateral obliquity—os uteri quite flaccid, about two or three lines in thickness, and dilated to about the size of half-a-dollar. On cutting into the cavity of the uterus the amnion was found deeply stained by the meconium, which had been forced from the fœtus in large quantities. The vertex of the child was presenting in a fair 1st position; the placenta was found attached to the left side of the fundus uteri, and, on detaching a portion of it a distinct and entire membrane was found interposed between it and the walls of the uterus.

I did not wait to see the autopsy completed, but am informed by two gentlemen who were present, that the only appreciable lesion was complete congestion of the right lung.

MISCELLANEA.

Report of the Medical Council of the Board of Health on Cholera.—The following report of the Medical Council of the Sanitary Committee of the Board of Health is so admirably adapted to the end designed, that we feel constrained to present it to our readers. It has afforded us much pleasure to witness, from time to time, the warm and decided interest manifested by the Medical Council for the public weal:

New-York, June 5, 1849.

In reporting to the Sanitary Committee in relation to the cholera at present prevailing in our city, the undersigned are happy to state that, although the disease is gradually extending among us, yet in its general character it is much milder than it was when it visited this city in 1832; that it seems more under the control of remedies; and that the proportion of deaths is smaller. These facts are consoling, and should excite in the hearts of our citizens the liveliest feelings of gratitude to a kind Providence.

The undersigned would also state, that whatever opinions may be entertained in relation to the abstract question, as to whether the cholera is or is not a contagious disease, no evidence has appeared, thus far, that the disease at present prevailing in our city has, in a single case, been produced by contagion; on the contrary, everything connected with its history proves that its origin and diffusion have been dependent upon causes entirely different. The simultaneous occurrence of cases in different and distant parts of the city, between whom no sort of communication could be traced, and the immunity enjoyed by those holding constant intercourse with the sick in our Cholera Hospital, are facts which establish this point beyond the possibility of dispute. In not a single case, as yet, have either physician, nurse, or visitor of our Cholera Hospital been known to contract the disease. These facts should dispel entirely from the minds of our citizens all fear in attending their friends and relations who may be attacked with the disease, and at the same time dissipate whatever apprehensions may hitherto have existed in the public mind in relation to the establishment of Cholera Hospitals in any part of our city, when called for by the demands of necessity and humanity.

The undersigned believe that the *cause* of the disease exists in the atmosphere, and that the whole community are at present more or less under the influence of this peculiar condition of the atmosphere—and in this way *predisposed* to the disease. To develope the disease, however, *exciting causes* are necessary, and these are to be found in all those things which have a tendency to disorder the bowels. With regard to the peculiar condition of the atmosphere which predisposes to the disease, we know nothing. Human skill and agency, therefore, can do nothing in meeting this difficulty. The exciting causes, on the contrary, are in a great measure under our control, and by properly guarding against these, much, very much may be done in obviating the development and extension of the disease.

John B. Beck, M. D.
Joseph M. Smith, M.D. } *Medical Counsel.*
Sam'l W. Moore, M. D.
Seth Geer, M. D. *Resident Physician.*
Rich. L. Morris, M. D. *Health Commissioner.*

National Convention for Reviving the Pharmacopæia of the United States.—The Convention for reviving the Pharmacopœia, which met in Washington, in January 1840, adopted the following resolutions:

"1st. The President of this Convention shall, on the first day of May, 1849, issue a notice, requesting the several *Incorporated State Medical Societies*, the *incorporated Medical Colleges*, the *incorporated Colleges of Physicians and Surgeons*, and the *incorporated*

Colleges of Pharmacy, throughout the United States, to elect a number of delegates, not exceeding three, to attend a General Convention, to be held at Washington, on the first Monday in May, 1850.

"2nd. The several incorporated bodies, thus addressed, shall also be requested by the President to submit the Pharmacopœia to a careful revision, and to transmit the result of their labors, through their delegates, or through some other channel, to the next convention.

"3rd. The several medical and pharmaceutical bodies shall be further requested to transmit to the President of the Convention the names and residences of their respective delegates, as soon as they shall have been appointed, a list of whom shall be publised under his authority, for the information of the medical public, in the newspapers and medical journals, in the month of March, 1850.

"4th. In the event of the death, resignation, or inability to act of the President of the Convention, the duties shall devolve on the Vice-President, and, should the Vice-President be prevented from serving, upon the Secretary or Assistant-Secretary, the latter acting in the event of theinability of the former."

In compliance with the foregoing resolutions, the undersigned having been informed by the President of the late Convention, Dr. Lewis Condict, that he would be unable, from indisposition, to perform the duty assigned to him, gives notice to the several medical and pharmaceutical bodies enumerated in the first resolution, that a Convention for reviving the National Pharmacopœia will meet in the city of Washington, on the first Monday in May, 1850. The undersigned also requests of the several bodies referred to, that they will fulfil the wishes of the Convention, as set forth in the second resolution; and, further, that they will transmit to his address, on or before the first of March next, the names and residences of the delegates whom they may appoint, in order that a list of them may be published, as directed in the third resolution.

Geo. B. Wood, M. D.
Vice-President of the Convention of 1840.
Philadelphia, May 1st 1849.

St. Louis Medical and Surgical Journal.—We most cheerfully copy the following from the Western Lancet. At the same time we cannot refrain from expressing our deep and sincere regret that the circumstances which renders it necessary have occurred:

St. Louis, May 21*st*, 1849.

Gentlemen:—Will you be good enough to state in the next number of your Journal that during the late destructive fire which well nigh consumed our entire city, the office at which the St. Louis Medical and Surgical Journal was printed, was destroyed, and with it all the type, manuscript, back numbers and other material of the Journal. The next number was to have been issued in a few days. At present every thing is in confusion, but as soon as we have an opportunity of looking around, other arrangements will be made, and the work commenced again with as little delay as possible; in the mean time we take this method of informing our readers of the cause of our suspension, and to bespeak their kindly indulgence. We would also be gratified if other Journals would make the same announcement.

With sentiments of respect and esteem, I am,
Gentlemen, your obedient servant,
W. M. McPheeters.

OBITUARY.

Death of Dr. James Macdonald.—Died on the 5th of May last, at Flushing, Long Island, Dr. James Macdonald, aged 45 years.

[The Resolutions of condolence passed by the New-York Medical and Surgical Society are necessarily postponed, in order to give place to the following eulogy, read before the Society. By Dr. John A. Swett.—*Ed. N.Y. Jour. Med.*]

Mr. President and Gentlemen:

We have been called upon for the first time since the organization of our Society, to record the death of one of our associates. During a period of fourteen years we have enjoyed a singular immunity: while severe sickness has fallen upon some in our circle, and many doubts and anxieties have been awakened as to the issue, yet we have all escaped the final blow until the recent and unexpected loss of one of our most valued associates has at length broken the bond that united us.

The richest legacy which a good man can leave behind him is the memory of his life; to his family, no accumulation of the gifts of fortune can equal this bequest; to his friends, no monument is more enduring or beautiful; to his professional associates, no record of professional labor is more valuable. The recollections of our deceased friend and brother, are full of interest and of consolation to all who knew him. In his domestic relations in society, and in the ranks of the profession, he filled the measure of usefulness and honor. In the prime of life, with the faculties of his mind fully developed by study and observation, rich in the gifts of the heart, a truly generous and noble nature, uniting great dignity and affability of manner; he was equally conspicuous and admired in the public and the social relations of life, equally trusted and appreciated by those who required his services, and by the profession which was honored and elevated by his example.

Dr. James Macdonald was descended from the Scottish Clan of Macdonald, a name which has become historical in the annals of the past century, both for the exhibition of the highest moral worth and the most distinguished public services. His father, Dr. Archibald Macdonald, emigrated to America in childhood, where he studied the profession of medicine. After practicing as a surgeon in the British army, he finally settled at White Plains, in this state, where he continued the practice of his profession with distinguished success until his death, in the year 1813.

James Macdonald, at the time of the death of his father, was only thirteen years of age, but his education was carefully superintended by an excellent and devoted mother. It was intended that he should follow a mercantile pursuit; but his early predilections carried him, in opposition to the wishes of nearly all his friends, into the profession of medicine.

In the year 1821 he commenced the study of his profession in his native village, but afterwards entered the office of the late Dr. Hosack, of this city. He received the degree of Doctor of Medicine from the College of Physicians and Surgeons in New-York in the year 1825.

At this time the office of Resident Physician of the Bloomingdale Asylum was vacant, then a subordinate situation, usually occupied by a young member of the profession, acting under the direction of the visiting physician, who was a practitioner in the city, and who visited the Institution at stated intervals. Dr. Macdonald at once applied for the situation, and although just entering the ranks of the profession, without experience, and without many friends, his frankness and intelligence made so favorable an impression on the Governors of the Institution, that he received the appointment, although actively opposed by two rival candidates, supported by powerful friends.

This flattering success fixed the future direction of Dr. Macdonald's studies, to which his excellent qualities so eminently adapted him. He entered upon the study of mental diseases with great enthusiasm, and so great was the confidence reposed in him, that the medical responsibility of the Institution was soon almost wholly in his hands. He continued to discharge his responsible duties with the greatest fidelity and success until the year 1830, when he resigned and commenced the practice of his profession in this city.

His separation, however, from the Institution in which his professional career had commenced, so honorably to himself, was but temporary; the following year the Governors of the Hospital proposed to send him abroad, for the purpose of visiting the asylums for the insane in Europe, that such improvements might be introduced into the Institution at Bloomingdale as the visit might suggest, and with the intention of placing him at the head of that institution after his return.

He sailed for England in June, 1831, and remained abroad about sixteen months. During this period he visited the different asylums for the insane in England and on the Continent, devoting his time almost exclusively to the great objects of his voyage. On his return he entered at once upon his duties as physician to the Bloomingdale Institution, and assumed the whole medical responsibility connected with its management. Eminently qualified by natural gifts, with a considerable share of personal experience before leaving home on his mission, full of zeal and of tact in the acquisition of such knowledge as is really practical, it will easily be understood that Dr. Macdonald entered upon his new duties, not only qualified to discharge them with the greatest success, but that he was destined to a still higher honor, that of becoming an authority and a counsellor to his profession; and such was the natural consequence of his position and of his acquirements, he was soon regarded, not only as the excellent physician of a large public institution, but as the first authority on mental diseases within the reach of his medical brethren in this city—at this time, indeed, his engagements did not allow him the liberty of a consultation practice, but in later life his reputation established at Bloomingdale was not forgotten.

In the year 1837, Dr. Macdonald, having fulfilled his engagements with the Governors of the Bloomingdale Asylum resigned his situation in that institution, much to the regret of all connected with it. The Governors, in accepting his resignation, expressed to him "the gratification they felt at the great success which for many years had attended his treatment of the insane patients, and assured him that they held in just estimation the amiable and gentlemanly deportment which had always characterised him during their long intercourse."

Immediately after leaving the Bloomingdale Asylum Dr. Macdonald re-commenced the general practice of his profession in this city, and in May, the following year, was married to Miss Eliza H. Miller, daughter of Sylvanus Miller, Esq.; the same year he was elected one of the Attending Physicians of the New-York Hospital.

Although now favourably situated for the general practice of his profession, yet the long direction of his mind to that department for which he was so eminently qualified, did not allow him to remain satisfied with a different sphere of action. A long cherished design of establishing, in connection with his brother, Mr. Allan Macdonald, a private institution for the insane, was carried into execution after an interval of about three years. For this purpose two houses, agreeably situated on Murray Hill, in the suburbs of the city, were selected, but the rapid spread of our population soon rendered this situation no longer available. Fortunately, an excellent opportunity for a change of residence soon presented itself. The elegant and spacious mansion of the late Chancellor Sandford, at Flushing, was purchased, and in May, 1846, the Institution was permanently located in this new situation.

Since this period, gentlemen, we have enjoyed the annual pleasure of a visit to the institution, at one of the regular meetings of the Society—year after year we have watched the progress of those improvements which have at length rendered Sandford Hall probably the finest private asylum in the country, and, perhaps equal to any in the world. In addition to the natural advantages of the situation, the original erection of the building could hardly have been better adapted to the purposes to which it was afterwards to be applied. What the hand of chance first so well erected, the hand of skill and of good taste soon admirably adapted. Beauty, neatness, comfort, threw their enchanting influences over the spot and left nothing to be desired.

In this Institution, so admirably adapted to its object, Dr. Macdonald now seemed permanently established. No one could doubt its success, and a long career of usefulness seemed promised to the auspicious enterprise. But such was not the decree of Providence.

The symptoms of an ordinary bronchities had effected Dr. Macdonald during the month of April last, but his general health was not affected, and his spirits were excellent. On the morning of the first of May he was suddenly attacked by a chill, which was soon followed by symptoms of pleuritis,—no alarm was felt for his situation until the third day, when he was visited by Dr. Buck, and on the succeeding day by Dr. Johnston. On the fourth day his physicians thought him free from danger, but on the following day the symptoms again assumed an unfavorable aspect. Dr. Macdonald himself expressed the opinion, with gentle firmness, to his wife, that he should not recover. He said that, but for her sake and that of his children, he would choose death rather than life,—that he was resigned to either event, having long endeavored to keep the idea of his death constantly in view. He enjoined upon his wife a religious education for his children, and begged her to cherish in their hearts the thought of their father. On the following day mental hallucinations, which had been occasionally present in slight degree, became more decided, and he, who had so often combated them in others, now felt their influence. Death was evidently near at hand. Extreme restlessness ensued, with a constant desire to get up, and then immediately to return to bed. Death indeed occurred while making one effort to rise, and, as was said "to return home."

A post-mortem examination revealed the existence of a double pneumonia with pleuritis.

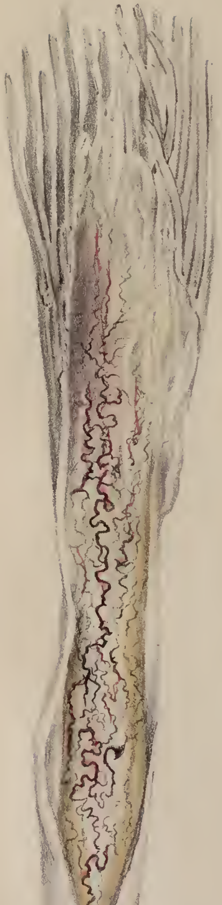
On Tuesday, the 8th of May, the funeral took place. Considering the very unfavorable state of the weather, the attendance was large, both from the city and the neighborhood. The sad interest felt in the event by the inhabitants of Flushing was exhibited by the closing of the stores, and by the sorrow depicted on every countenance. The domestics in Dr. Macdonald's employment piously decked the coffin with flowers, and, with tears, insisted on bearing the body to the grave. Many of our most eminent physicians and most distinguished men surrounded the grave as the last rites of sepulture were performed, and many more were at least present in thought and feeling who could not enjoy the melancholy satisfaction of assisting at the last sad offices of friendship and respect.

As a member of this society, Dr. Macdonald was unsurpassed in his interest for its welfare and prosperity. During his membership he communicated several valuable papers on mental diseases, and often interested us by the detail of important cases. He was evidently looked upon by us all as our authority in his special department of the profession. In January, 1843, he was elected as our President, and all will remember the urbanity with which he presided at our meetings. After his removal from the city he still continued to exhibit his interest in our meetings, by an attendance more regular than could have been expected from one who lived so far from us. On many an evening his cheerful voice would greet us, and every year his open hospitality received us. Our visit to Flushing was always looked forward to by us as a holiday, and, amid the flowers and fruits of the summer season, our professional cases and duties seemed to occupy a secondary place.

In establishing a private asylum for the insane Dr. Macdonald did not forget the unfortunate poor, but still extended to them the benefit of his experience and advice. As early as the year 1834, when the Corporation of this city were about erecting a public asylum for the insane at Blackwell's Island, he furnished plans for the buildings, and prepared, for their use, an essay on the construction and management of hospitals for the insane. In the year 1847 he was appointed one of the visiting physicians of the asylum at Blackwell's Island, and labored diligently to improve its condition. It was especially by his exertions that a library of about 1,200 volumes was collected for the use of the Institution.

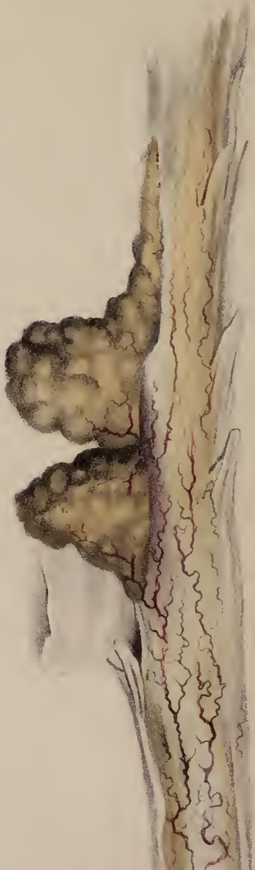
It was the happy union of the many excellent qualities that constituted the great charms of Dr. Macdonald's character. His intellectual powers were solid, rather than brilliant, but fully capable of sustaining him in the difficult investigations connected with his peculiar branch of study. His mind was practical and more decided to what was useful than to what was new and striking. He was alive, however, to all the great medical improvements of the day. His opinion was always respected, but his advice still more valued; for every one who knew him felt that the highest object of his ambition was to do good and to improve the condition of those committed to his charge. His moral qualities have seldom been surpassed. Pure and high minded in all the relations of life, devoted to his duties, frank and cordial in his professional intercourse, unpretending in his opinions, always ready to communicate what he knew, and to listen with respect to the sentiments of others, he walked among us without an enemy; professional jealousies did not reach him,—his success was regarded as a public benefit, and adding new honor to the profession he adorned. Cut off in the prime of life, and when just entering upon a new field of exertion for the benefit of his fellow men, with a young family growing up about him, and needing his care; surrounded by friends who honored him—with so much to live for—we could hardly realise his abrupt departure from life. But his example is left to us, and a feeling of pride mingles with our sorrow as, we remember his honorable career.

Fig. I.



CANCER OF THE SPINAL CORD,
ANTERIOR VIEW.

Fig. II.



CANCER OF THE SPINAL CORD.
SIDE VIEW.

THE NEW-YORK

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FOR SEPTEMBER, 1849.

PART FIRST.

ORIGINAL COMMUNICATIONS.

Art. I.—*Case of Cancerous Disease of the Spinal Cord.* By Charles A. Lee, M. D., Professor of Pathology in Geneva Medical College; the University of Buffalo, etc., etc. (With a Plate.)

About three years ago, I was called to see Mr. A. C. of this village, who was supposed to be laboring under some obscure form of disease, involving the spinal cord. He was of a strongly marked nervous temperament; thin emaciated form, and about 45 years of age. I found him laboring under great functional derangement of all the important organs, especially the kidneys and the liver; the urine being loaded with phosphatic deposits and highly ammoniacal, while immense quantities of fine bilious, calculous matter, chiefly cholesterine, passed with almost every evacuation from the bowels. He moved about with difficulty; complained of constant pain in the back and loins, and at times, severe neuralgic pains would attack the muscles of the trunk and extremities, or some of the large internal organs. The pain through the loins and kidneys was so severe that it was thought, in connection with spinal disease, there were renal calculi deposited in the substance of the kidneys. The tenderness over the lower dorsal and upper lumbar vertebræ, on pressure, was considerable. The history of the case, as communicated to me by his physician, Dr. Enos Barnes, is as follows:

He was taken in 1840, with pains in the right hip, occasioned, as he supposed, by riding a hard trotting horse. About 16 months afterwards, a painful abscess appeared on the left side, over the spleen, which was opened, and discharged for several weeks, but finally healed. A few weeks subsequent to this he began to be low spirited, and neuralgic pain, which had been rather slight hitherto, increased and became more general, nervous debility seemed to hang around him, and hypochondriasis became established. Appetite poor, much flatulence, bowels very irregular, causing alternately the extremes of costiveness or diarrhœa.

In the fall of 1842, while on a journey, he was taken with greatly increased neuralgic pains, which, for the first time, affected the spine principally in the lumbar region, producing great tenderness. Being bilious, he took liberal doses of calomel and was severely salivated; after a partial recovery he returned to his family. The neuralgia, however, extended to the lower limbs, first to one side and then to the other, but soon became more general, and affected both at the same time. He was cupped and bled freely, used rubefacients and repeated blisters and setons over the spine; took morphia and almost all the other strong narcotics, together with mineral and vegetable tonics, particularly the former; all of which gave partial relief from the pain, and materially improved his general health. At this time the death of a member of his family very seriously affected him, so much so as to entirely prostrate him; soon after which he removed to the village of Geneva, and Dr. Barnes took charge of the patient. According to his account, narcotics seemed to be the only remedies that gave any relief; his pain being excessive the greater part of the time.

He was then put upon the use of nitric acid, in conjunction with the narcotics, which seemed to produce a favorable effect, restoring the exhausted energies of the system, so that he could walk about the village with very little pain. This improved condition continued for about three months, when he declined the further use of the acid. Soon afterward, from taking cold, he was re-attacked with violent neuralgic pains in various parts, but most severely in the lumbar region, which continued with increasing violence, at irregular intervals, till his death, which took place in May, 1849. For the last three or four years of his life, it became necessary, in order to obtain relief from his excessive pain, to use large quantities of morphia; which, after almost every other kind of narcotic had been extensively tried, was found to be preferable. Occasionally when the pain was most severe, he took as much as 15 grains in from four to eight or ten hours.

For the last two or three years he has seldom or never had anything pass his bowels, except by the aid of injections; even the most active cathartics could never be made to operate without such aid. He also frequently passed large quantities of renal and bilious calculi. Among other remedies magnetic electricity was extensively and faithfully tried, but with very little benefit.

It appears from his confession, that for many years he had practised excessive venery, although he as well as his wife enjoyed tolerably good health for a long time, and did not appear to be materially injured by it. He was also addicted, for many years, to a most inordinate use of tobacco.

About five or six months before his death, he lost entirely the use of his limbs, which retained, to a considerable degree, the power of sensation; and he was wholly confined to his bed: previous to that time, however, he had moved about the house with the greatest difficulty, motion causing exquisite pain, so severe were his paroxysms of suffering at times, that his screams could be heard at a distance of several rods, although he was a man of considerable fortitude and power of endurance. He sunk from gradual exhaustion.

Autopsy.—Ten hours after death.—Body much emaciated, no external marks or discolorations. The thoracic viscera were found perfectly healthy; also the large abdominal organs. The kidneys were rather smaller than natural, but their texture, as well as that of the liver, was natural. The colon in several places, was contracted for the space of several inches to the size of the little finger, its coats being evidently thickened and somewhat indurated. How long this alteration had existed it is impossible to say, but probably for a long time, which may account for the obstinate constipation under which he labored. Hard scybalous masses were found in considerable quantity above these contractions in the gut. The spleen was somewhat enlarged, and softened in its texture.

Spinal Cord. The chief disease was found seated in the lumbar portion of the spinal cord, opposite the last dorsal and two upper lumbar vertebræ; at this part, for a distance of several inches, the membranes of the cord were found wanting, and a carcinomatous degeneration of the substance of the cord had taken place, disorganizing its texture upon its anterior face especially and more or less throughout its whole diameter. The spinal marrow, for a space of two or three inches, was changed in color and density; some portions being softened and almost diffluent, and interspersed throughout, were deposits of melanotic matter; while other parts were of abnormal hardness, and of a dirty white or yellowish hue, intersected with blood-vessels crossing in different directions. The pressure of the cancerous tumor on the spinal column had caused the absorption of a portion, probably two-thirds, of the bodies of the two upper lumbar vertebræ; and these cavities, varying from one to two inches in depth, were filled with portions of the diseased mass. The diseased portions filled up the cancellated texture of the bones and was separated with great difficulty, some of it being soft and semi-fluid.

Remarks.—Cancerous degeneration of the spinal cord must be regarded as an extremely rare disease. The French translator of Meckel's Anatomy, (*Am. ed.* p. 507, vol. 2,) remarks, that "*we know as yet of no well authenticated case of cancer of the spinal marrow.*" Andral, although he collected 43 cases of cancer of the brain, recorded none of the spinal cord itself, from which I infer that the disease had escaped his observation. Guersent mentions a case of cancer of the medulla oblongata, which had principally destroyed the pyramids and olivary bodies.

Cruveilheir has recorded a case of cancerous tumor under the arachnoid membrane, in a fatal case of paraplegia, opposite the third dorsal vertebra; which, by its pressure, had caused the paraplegic symptoms. (*Anatomie Pathologique, livraison* 32, fig. 2. 2. 2.) This tumor is described as of an ovoid shape, of a grayish color, soft in consistence, and occupying the anterior face of the cord. This seems to have been a case of cancerous tumor originating in the membranes and only affecting the cord by mechanical compression. Cruveilheir remarks that it is not uncommon to find grayish-red granulations, of the same consistence as those of the brain, in the cellular tissue beneath the arachnoid of the spinal cord, just as they are met with under the same membrane below the dura-mater in the brain. This pathologist also refers (*loc. cit.*) to a case observed by M. Duplay, one of M. Rostan's assistants, in a man 63 years of age, who died of paraplegia, cerebral hemorrhage supervening, with loss of sensation and motion, and where two tumors were discovered beneath the arachnoid; the lower one among the nerves of the *cauda equina*, of the size of a large filbert; grayish, soft, granular, and semi-transparent; its surface being traversed by large veins, which formed a kind of sheath. The other tumor occupied the superior and posterior part of the dorsal region; was olive like, and of a similar structure to the tumor below. The posterior and middle portions of the spinal cord, were of a pulpy consistence, grayish, and semi-transparent in their whole corresponding portions. Cruveilheir refers to tumors of an encephaloid nature, attached to the membranes, one of which he has observed growing from the dura-mater of the cord, attached to it by a pedicle of a grayish hue, soft, and enveloped by a fine membrane. In the Transactions of the *Royal Med. and Chir. Society of London*, (sec. series, vol. 1st, 1841,) we find four well-marked cases of cancerous or malignant disease of the spinal column, described by Mr. Cæsar

Hawkins, which constitute by far the most important additions to the pathology of this disease, hitherto recorded.

Case 1.—The first was the case of a female, aged 39, admitted into St. George's Hospital for cancer of the breast. On dissection, the body of the 5th cervical vertebra was found very irregular on its surface, and was softened throughout, with much enlargement of the cells of the cancelli, which were filled with a sanguineous pulpy fluid ; the two adjoining vertebræ showed a lesser degree of the same morbid structure. In this case, the cancerous degeneration in an early stage, affected chiefly the cancellous texture, and influenced the adjacent nerves, but not forming any tumor, and causing no alteration in the functions of the spinal marrow. It will be noticed that the cancerous affection of the spine, preceded schirrus of the breast.

Case 2.—The second case was that of a female, aged 55, admitted for paraplegia, who had six years previously had a cancerous breast removed. Pain commenced in the dorsal region of the back, attended by pricking sensations in the feet, and soon followed by numbness and loss of sensation, and in a short time by loss of power over the muscles of the lower limbs, which became involuntarily contracted, with paralysis also of the bladder and rectum. The patient at length complained of constant and acute pain along nearly the whole spine; tenderness was manifested on pressure ; and while there was an absence of voluntary motions, the excito-motory power was displayed on the application of irritants to the extremities.

Autopsy.—All the vertebræ were found to be unusually soft and vascular, and there were seen in the section of several of the dorsal vertebræ spots or tubercles of yellowish-white substance, similar to that found in larger quantities in these bodies. On opening the sheath of the spinal marrow, a little clear water was seen below the arachnoid membrame, but the whole medulla was of its natural color and consistence, and presented no appearance of inflammation. Opposite to the sixth dorsal vertebra it had been pressed upon by a tumor projecting from the body of the bone, so that a deep sulcus of the entire circle was formed, in which so little medullary matter was left that the central part was almost transparent. The part thus pressed upon was full half an inch in length.

Opposite to this part some firm structure, without bone, projected from the body of the 6th dorsal vertebra in the form of four oval prominences, so as to encroach considerably on the canal; three of these were covered by the dura mater in firm union with the morbid growth, but over the other an opening was formed in the membrane, with smooth edges, through which the new growth appeared, the opening being the result of simple absorption, without any ulceration. On making a section of the vertebræ the morbid growth was found to proceed from these vertebræ, the 6th or central one being most altered in shape, though all three of their bodies were almost entirely converted into a cancerous substance, the 6th having spread out posteriorly, while it was much compressed in front, the 5th and 7th vertebræ almost coming in contact. An acute angle was thus produced, which made a considerable prominence during life. The cancerous matter had been deposited in the form of tubercles in the cancelli of several of the other vertebræ. The new growth was firm with fibrous structure of a white appearance in bands, with some yellow softer substance in the interstices; many of the other bones of the body, and the other parts of those in which the cancerous tubercles were seen, were softer and more vascular, and with larger cells than usual, with reddish pulp, in their cancelli.

Case 3.—In this case, a gentlemen, aged 74, was attacked on exposure to cold, with severe pain on the left side of the neck, extending from the head to the shoulder, with numbness of the left side of the head. The pain, which was like that of rheumatism, was persistent, and succeeded by a swellling on the left side of the neck. The pain and swelling continued to increase; the former excruciating and constant, and the latter extending from the head to the level of the 5th cervical vertebra, having a firm, elastic feel, with a sense of deep fluctuation. The swollen part was very tender, without adhesion to the skin or change of color; motion, even the slightest attempts at rotation of the head, was attended with excruciating pain. About 3 weeks before death, the left arm became nearly paralyzed, and the power over the left leg was somewhat impaired, the senses remaining, all the time, perfect. The *pain continued constant*, preventing sleep, and demanding opiates in large doses.

On dissection, the tumor was found to occupy the place of the 3d cervical vertebra, part of the 2nd, with a considerable portion of the adjacent ligamentous, tendinous and muscular substance; the distinction between what had been of osseous, and what of soft structure, not being clearly perceptible. The new structure occupied the whole of the arches and processes of the vertebræ, and in part their bodies also, so that scarcely any osseous part remained. The medulla itself was not unusually vascular, and the brain was also healthy, with the exception of some serum effused under the arachnoid of the cerebrum. The tumor was white and lardaceous in appearance, and softest in the centre where the bone originally existed, which part was also more vascular than the outer part, which had been formed by the softer tissue around the vertebræ; on the left side, where the natural texture of the muscles began to be evident, in union with the morbid growth, was a small quantity of dark bloody pus.

The 4th case does not present any thing worthy of particular note.

Sir Astley Cooper has also recorded two cases of cancer of the spinal column, and Sir B. Brodie one. These comprise, it is believed, most, if not all of the cases hitherto published.

In nearly all of the cases, pain, the most excruciating, appears to have been present; and Mr. Hawkins observes, that he never saw evidence in any other disease of the spine of such exquisite suffering, as in two of his cases. When with this we associate derangement of the functions of the spinal marrow, in some cases amounting to a total abolition of the power of sensation and motion, with derangement also of the functions of the liver, kidneys, bladder, &c., we shall be aided in our diagnosis.

In the case of Mr. C., there was no doubt in the minds of any of the physicians who saw the patient, that there was severe and extensive disease of the spinal cord, but no one formed a correct idea of its nature, or supposed that there was such freedom from disease in the important vital organs; there being grave functional derangement, both of the kidneys, liver, and digestive apparatus generally.

Cancer of the spinal cord, as well as that of the brain, does not, however, reveal its presence by any very characteristic symptoms, unless the intense pain be so regarded. The anterior portion of the column was the chief seat of the disease in the present instance, and the power of motion was more affected than that of sensation, which indeed seemed to have been exalted throughout a considerable period of the disease. Whether the disease originated in the substance of the cord, or in the membranes, as in the cases recorded by Cruveilheir, or in the cancellated structure of the bones, is doubtful; it seems most probable that it commenced in the membranes, which, together with a considerable portion of two of the bodies of the lumbar vertebræ, became absorbed by the pressure; thus causing the paralysis, and the functional derangements described.

The Plate accompanying this case exhibits very distinctly the appearance of the diseased mass, and the spinal cord (the sheath being removed,) for some distance above and below the tumor.

Fig. 1 represents a posterior view of the cord, the membranes being laid open, showing the vessels beautifully injected.

Fig. 2 is a side or lateral view of the cord, representing the cancerous tumors projecting into the cancellated structure of the bones, (the two upper lumbar vertebræ,) the membranes at this part having been absorbed.

Cancer of the Spinal Column.—Mr. Walshe has given us a case of this disease, affecting the lumbar vertebræ, in one of which it originated and where with the progress of infililation the bony tissue had disappeared, and the adventitious substance had destroyed the compact tissue, and protruded posteriorly under the dura mater into the spinal canal, and anteriorly under the anterior ligament. The cancerous product was composed of a fibrous stroma, having its fibres arranged almost rectilinearly, and containing creamy, sanguineous pulp in its meshes, being of the scirro-encephaloid species. The cases described by Sir Astley Cooper, Mr. Brodie, and Mr. Hawkins, were all of a similar kind, involving the cancellated tissue of the vertebræ, and of a true encephaloid character. Mr. Sanson (*Arch. Gén. de Méd.*, tom. iv., p. 691,) has described a case of general cancerous diathesis, in which almost every one of the vertebræ contained cancerous substance. It would seem to be the tendency of the cancerous disease, after having destroyed the bony structure, to grow in the direction of the spinal canal, pushing before it the dura mater; the bones being removed by interstitial absorption, as the new material accumulates. The medulla and meninges undergo no alteration, so long as the disease is confined to the bony structure; but when it makes its way into the spinal canal, it may contract adhesions to the dura mater and press on the cord, causing atrophy and paralysis. But one or two cases are on record, where the cancerous diathesis was first manifested in the spinal region; in a great majority of instances the mamma has been the organ primarily affected.

The *symptoms* of spinal cancer are not uniform. In one case, (*Brodie's*,) there seems to have been but little pain; but in all the other cases, pain, at first resembling that of rheumatism, but afterwards becoming more constant and acute, or excruciating, has been observed. With this are connected pain and tenderness on pressure, together with inability to lie in certain positions and perform certain movements, according to the part affected. Tumor externally, after the soft parts have become effected, is also one of the usual symptoms, as well as the posterior prominence of one or more of the spinous processes.

If the nerves have become implicated in cancer of the cervical vertebræ, pain may be expected about the neck and over the scalp; in one of Mr. Hawkins' cases, there was pain and difficulty in swallowing. The symptoms dependant on the medulla will of course vary according to the extent of the disease. Pain, numbness, loss of sensation and motion, involuntary spasms, involving the lower limbs, have been observed; and these were present also in the case I have described. Loss of power over the sphincters of the bladder, and rectum is also to be expected in severe cases, together with an alteration in the intestinal secretions, permanent alkalescence of the urine, disposition to sloughing, œdema, &c. In this affection death results from the cachectic state, the patient being gradually worn down by severity of suffering and failure of digestive power. The treatment can of course, be only palliative.

Cancer of the Spinal Meninges.—There have been several cases recorded, showing that cancerous disease may attack the various membranes of the cord, and the interspaces between them. Walshe (*The Nature and Treatment of Cancer, Eng. ed.*, p 526,) has related a case, where the cellular membrane between the vertebræ and dura mater was the sole seat of the disease, and Dr. Abercrombie found in the body of a male a spongy tumor, of a grayish yellow color, resembling fungus hematodes, within the foramen magnum, attached to the inner surface of the dura mater; and M. Cruveilheir (*loc. cit.*) describes a case where the tumor was attached to the dura mater of the cord by a narrow fibrous peduncle. M. Hardy and M. Collin have given us cases where encephaloid tumors have been found growing in the arachnoid cavity attached by tender filaments to the medullary laminæ of the membrane. Cases of this disease, situated in the cellular membrane, between the pia mater and deep laminæ of the arachnoid, may be found described by Dr. R. Reid, Dr. Fisher, M. Velpeau, and M. Cruveilheir.*

The medulla may or may not be affected in this form of the disease, according to its progress and extent. *Myelitis,* with softening, may result from the pressure, and the symptoms also vary according to the same circumstances. Local pain and tenderness are not to be expected, where the bones and subcutaneous textures are free from disease ; but where the medulla is pressed upon, then alterations of sensibility and movement, may be looked for in the parts below the seat of the disease. At first muscular power is lessened ; then the limbs are stiff and difficult to control ; tonic contraction, or painful convulsive movements may exist in some cases, constituting a species of painful paraplegia. Sensibility or motion will be affected, according as the posterior or anterior tracts of the spinal cord are implicated ; although one or two cases seem to throw doubt upon this point. (*Cruveilheir.*) Retention and incontinence of urine, with obstinate confinement of bowels, or involuntary discharge of the fæces, and an alkaline and purulent state of the urine, œdema of the implicated limbs, and ulceration and sloughing of parts subjected to pressure ; these and other symptoms have been observed in particular cases. Besides the cancerous, the spinal meninges may be the seat of at least four kinds of tumors, viz : the simple fibrinous, the fibrous, tuberculous, and the acephalocystic. In some cases, as already observed, it is impossible to determine from what texture the diseased mass originally sprang. Several cases of this kind are recorded by Walshe. (*loc. cit.*)

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* See Bibliography at end of this article.

Spinal Marrow.—But little is known in relation to cases originating in the cord itself. Abercrombie, (*Diseases of Brain,* 3d *ed.*, p. 369, 1836,) has quoted a case from Gendrin, in which " a firm white tumor, the size of a filbert, enclosed in a cyst, and slightly softened in the centre, was found at the lower extremity of the cord. It lay between the two columns of the cord of the left side, and in some degree encroached upon those of the right ; the left anterior column, in particular, was much distended and flattened by it." Calmeil has also recorded a similar case. *Art.* Moëlle Epinière, Dict. de Méd., 2ème édit. tom. xx, p. 52, 1839. Another case is given by *Ollivier,* De La Moëlle Epinière, etc., de 3ème édit. tom. ii., p. 503, 1837.

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Art. II.—*On Malaria.* By Samuel Henry Dickson, M. D., Professor of Theory and Practice of Medicine in the University of the City of New-York.

The etiology of periodical fevers is a topic of permanent and absorbing interest. Few subjects have been so often or so ably discussed; the ingenuity of medical theorists has found no where so wide and fair a field for its exercise. Let us examine, for a moment, the present state of the discussion.

Diseases may be divided into the specific and non-specific; those which require for their production a special cause, an agent of definite and characteristic properties, being designated by the term specific. Here we would include the contagious affections, febrile and non-febrile, in all which a notable *materies morbi* may be referred to as necessary for the generation or production of the concurrent phenomena. Under the same head we might speak of delirium tremens, rachialgia, and spontaneous gangrene from ergot, and the long list of influences exerted by the several articles of the materia medica: ptyalism from mercury; the sloughing cheek and carious alveoli of the phosphorus match-maker; nay, the mechanical phthisis of the knife-grinder and coal-heaver might be placed here, with the long train of less palpably developed results of narcotism by alcohol and tobacco. Beyond these our inquiries must invade the domains of conjecture and speculation.

It is, however, among endemics and local epidemics that we shall find the subjects of most difficult research, and in this relation, of the highest importance. Why plica polonica belongs only to one region or people, and pellagra exclusively to another; why bucnemia prevails specially in Barbadoes; trismus nascentium in Iceland, and traumatic tetanus in Santa Cruz; why plague and ophthalmia are indigenous to Egypt, and yellow fever to Havana and Carthagena; why goître and cretinism besets so grievously the Alpine valleys; and why the rich fields of Lombardy and the desolate plains of the Campagna di Roma, are annually ravaged by periodical fevers, these are questions which, perpetually recurring, have hitherto received no satisfactory answer.

To which of these classes of disease, specific or non-specific, does periodical fever belong? This is the first point to be investigated; this is the first step in the debate; and if the correct direction be not followed from the beginning, we must surely be led far astray, in our progress toward a conclusion.

The prevailing opinion that such fevers are of specific nature, and derive their origin from a peculiar morbid agent or poison, is maintained, not without some vagueness, I acknowledge, upon the following grounds: 1. The familiar series of concurrent and successive symptoms, the characteristic phenomena of these fevers, are supposed to be so marked as to demand, *ex necessitate*, a reference to a specific and relevant cause. 2. The second position, implied, indeed, in the first, is the total inadequacy of all obvious contingencies and known modes of causation to account for effects apparently so varying and disconnected with them, yet, under other and indefinable circumstances, so uniform and susceptible of repetition. 3. The *à posteriori* argument drawn from the unequivocal and impressive efficiency of the best, if not the only specific remedy known in our materia medica, (cinchona and its salts.)

1. The periodicity of these fevers, so familiar and yet so strange a fact, or series of facts, has not been, I think, sufficiently considered or studied. It is true, that periodicity is a very frequent element of disease in general; nay, a certain degree of regularity of movement, of alternating or recurrent conditions, may, perhaps, be regarded truly as the rule, and its absence the exception, in the symptomatology of all morbid affections. Neuralgia rarely fails to observe this law with more or less precision; convulsive maladies generally, epilepsy and hysteria more particularly, show its influence; the return of hemorrhages may often be predicted; inflammations, irritations and congestions, all are known to recur at stated times, and even suppuration is occasionally suspended and resumed at exact intervals, as in the tenacious disorder of the frontal sinus and antrum maxillare connected with influenza; organic changes of structure, scrofulous and others, though of course themselves continuous, give rise to hectic of diurnal or double diurnal repetition, and the same periodical disturbance of the constitution often follows wounds and mechanical injuries. It is also true that all the healthy functions, actions, and habits of the system are either governed originally by some law of regular revolution or fall readily into a convenient obedience to it; and upon this normal periodicity seems indeed to be founded most of the phenomena of periodicity belonging to the history of diseases.

But if any are independent of this analogy, proceeding without perceptible relation to it, nay, traversing it freely, we may affirm the fact to be true of what are called malarious fevers. These present a variety of types; they are remittent and intermittent; quotidian, tertian, and quartan, with duplications, reduplications, and interchanges, of great complication and intricacy, yet always preserving a well-defined course, and easily unravelled if carefully attended to. The quotidian has much analogy with the ordinary movements of the human system, and is hence the type commonly assumed by fevers which attend upon incidental irritations and modes of disturbance, also in all hectics. A good illustration of this influence is given in M. Brachet's account of the production of an artificial intermittent in himself by plunging into cold water at a fixed hour for several evenings in succession.

The tertian departs abruptly from this analogy. "There is," says Watson, "no known bidual habit in health." Perhaps we may fairly regard as an exception to his remark, the habit of alvine evacuation on alternate days, which seems perfectly natural to some men who enjoy good health. But this is unimportant. In some of the lower classes of animals bidual habits are said to be noted. Knox tells us that in the wild goose, swan, and duck tribes, an egg is laid only on every second day.

We lose all hold upon any normal clue in this labyrinth, when we reflect upon the superposition or accumulation of paroxysms so often observed—the herosthesis of the ancients, the tertiana duplex et duplicata, where each day shall present its access of fever, yet evidently not quotidian, but a tertian repeated, or rather *two tertians ;* or one day shall be free from fever, and every other day be burthened with two paroxysms ; or as in the triple tertian, not very frequent, but occasionally met with, I suppose, by every extensive practitioner in malarious countries, where two paroxysms mark every alternate day, a single access presenting itself on the less unfortunate days. For such extraordinary phenomena, so far removed from all correspondence with any normal actions of the organism ; for such striking and impressive, and novel effects, we must seek some adequate, novel and relevant cause.

The quartan, which rarely in our country commences as the original or primary type of an attack of intermittent, is usually considered as most remote from any familiar or incidental analogies. Its history is, indeed, singular. In thirty years of practice in a malarious region, I have met with but two cases beginning with this type ; both in young persons between eighteen and twenty-one, one a male the other a female; both in the better conditions of life, and as little exposed as any residents in such a region could be. In general, the quartan makes its appearance as a degenerate tertian or quotidian. From either of these it is formed in the same mode, that is, by the loss or elision of two paroxysms, upon or after which there commences the new interval or train of progress. The extreme obstinacy of this mode of intermittence, or rather recurrence, is matter of universal notoriety. I saw, in 1817, a case of quartan of15 years' duration brought to a close. Some few years since a gentleman placed himself under my care, who had not missed his quartan paroxysm once in 18 months. The books were formerly filled with such instances; now, happily, no longer to shame the profession. The subjects of these tedious quartans are often apparently in very good health in every other respect; stout, robust, corpulent, athletic, with good appetite, sound digestion and ready assimilation, performing with alacrity all the duties of life, and enjoying all its pleasures.

The connection of the remittents of malarious districts with each other and with intermittents is undenied, and I believe undoubted. The analogies of movement presented, vary in different instances; but I believe in general they will be found to refer to the tertian rather than to any other types, the remittent persistence being attributable probably to some organic change in the condition of some one of the viscera; the abdominal contents being chiefly affected, the liver, I doubt not, in the great majority of cases, the spleen almost always, the mucous digestive tissue not unfrequently. Perhaps the same tenacity may be given to the attack, which would otherwise intermit, by congestion, irritation or inflammation of the vascular apparatus, the lungs and their appendages and the cerebro-spinal axis with its membranes. We can often trace throughout the whole history of a case, a correspondence with the periods of the double and even the triple tertian.

Let us take a cursory review of these facts. Of a certain number of persons residing at a particular spot, a proportion, in many places a large one relatively to the whole, shall be annually seized with periodical fever. The type will not in all be the same. Some will suffer from a fever continuous in duration, but notably and regularly subject to variations in degree of intensity, and in the concurrent phenomena. Others will be assailed daily by a paroxysm coming on at a fixed hour and subsiding after a certain duration, leaving an interval of freedom from fever for a part of the day. In others this interval will last a whole day and more, only a portion of every alternate day being annoyed with the febrile access; and yet in others, still more fortunate, there will be two days of comparative, nay, sometimes apparently absolute health, to one disturbed with fever. It is agreed to ascribe all these diversified attacks to one identical source, of whatever nature, because the types not only occur together under precisely identical contingencies, but they are all convertible and frequently converted : the remittent often subsides into an intermittent, as a stage of convalescence, or in seeming convalescence, takes tenacious hold as an intermittent, the quotidian and tertian degenerate, as the common phrase is, into an obstinate quartan.

The given locality in which all these things happen, is sometimes narrowly limited and well defined ; they take place in the genial months of the year ; they seem to be relevant rather to season, however, than mere temperature, being frequent in the coolest spring, summer and autumn, and infrequent or exceptional in the warmest winters.

I will not dwell upon the proofs of the identity of cause and nature alleged to be deducible from the organic changes impressed by these several types. Our morbid anatomy of fever is still unsettled. Broussais found the seat of intermittent in the mucous membrane of the digestive tube, Schultz and Maillot in a lesion of the cerebro-spinal axis, and Piorry loudly maintains the exclusive rights of the spleen ; while Stewardson calls our attention to a special change of appearance in the liver as uniformly belonging to the history of a malarious remittent. For my part, I hold with Fordyce, who pronounces fever to be a disease of the whole system "*in every kind of sense.*" It is indeed a turbulent congeries of irritations, congestions and inflammations; it disorders always with congestion, and not unfrequently with consequent inflammation, every abdominal viscus, the spleen uniformly more or less, the liver also at some period of its unarrested progress; and the digestive surface of course, directly or secondarily. Nor can the kidneys escape when the skin is corrugated and its functions suppressed, or heated and dried in every scale; the lung yields somewhat less readily than the spleen to the congestion of the cold stage, but recovers from it with more difficulty, and inflicts more constitutional injury by its morbid condition while its important offices are impeded. As to the cerebro-spinal axis, the splenic plexus—nay, the whole sensorial tissue, ganglionic or cerebral, the cerebellum or the great sympathetic, nothing can be more inevitable than that they all must be involved in the wide-spread derangements, vascular, secretory and excretory, derangements of condition and function and composition of solids and fluids, which go to constitute in detail the full history of a febrile paroxysm. Yet I think there would be no great difficulty in showing that the effects or permanent influences of all these types of malarious fever, whether exhibited during their protraction in obstinate modes of ill health, or during the successive stages of convalescence, or in the autopsy of fatal cases, are closely analogous, extremely similar, or absolutely the same; and that they differ from the changes impressed by all other forms of fever known to us, arising from whatever sources.

Now it seems to me logically fair and correct to reason backward here, from effect to cause, and from the peculiar and specific character of the effects to infer a relevant specific and peculiar character in the cause. Incidental influences of familiar nature, acting in excess or by unadaptedness, produce impressions cognizable by their resemblance to those which they normally excite, the difference being in degree alone. But here, new movements have been originated, rythmical, so to speak, and tenaciously preserving a regularity which corresponds with nothing belonging to the healthy processes of the system: there is besides, something in the mode of causation of each case, which decides the train of movements in that case, making the periodical revolution diurnal, bidual, or tridual; bringing on a chill in one every day in the morning, in another a similar chill at noon every second day, and in still another in the afternoon of every third day. In one the head shall be prominently affected, in a second there shall be vomiting and tormina, and in a third the spleen, or liver, or kidney, or spine, shall be the seat of painful engorgement or inflammation. A fourth shall have no repetition of the chill which usually ushers in the paroxysms, but be regularly re-attacked at precise intervals with fever, commencing with the hot stage, or shall enjoy no absolute intervals, but suffer from a continuous hot stage, varying in degree of intensity, and in its undulations of violence exactly corresponding with the movements of some one of the types which intermit. This endless variety of identical or closely analogous impressions, preserved so often with an almost indescribable exactness through the whole duration of certain cases; in others, again, palpably intermingled, as though one attack of fever were removed or one superadded upon that or those previously existing—all this I say, irresistibly leads me to the belief of a specific cause, a poison acting peculiarly and characteristically upon the organism in its own exclusive mode.

This belief is strengthened by reflection upon another of the most notable circumstances in the history of malarious fevers. There is, as is well settled, a fixed period of time between the efficient exposure to the cause, whatever it may be, and the first access of definite disease. Sometimes the health of the subject is entirely undisturbed during all this time; occasionally there is gradual deterioration and progressively increasing ailment. Rarely, this imperfect derangement is persistent or protracted indefinitely, and seems to wear away or subside gradually, unless some exciting cause shall disturb the system and arouse the latent disease. But all incidental morbid causes act upon the system directly when applied; they may require, it is true, some continuance of application, some accumulation of impulse or impetus to overcome the elastic resistance offered by the vital forces, but when this acme is reached, they produce their results without delay or interval. Specific causes, on the other hand, all need time for the gradual maturation or development of their influences. It is probable that by increase of amount administered, or by intensity of concentration, they may be made instantly efficient; but this is the exception, not the rule. We read of malarious fevers ensuing at once upon exposure, but in this country we see none such. A *latent period*, very distinctly marked when the exposure has been transient, and I believe, always relevant to and corresponding with the *intercurrent period* of the type to be assumed, passes away before the access of fever. In our southern lowlands, this latest period is seldom less than one week, or greater than three in duration, but the books give us many histories of its being indefinitely lengthened, as in the unfortunate Walcheren expedition.

In this part of its history, malarious fever certainly resembles the specific contagions, which require a definite time for the development of their influences. Let it be observed too, and this is another point of similar analogy, that a continued application of the same agency—as by residence in the locality supposed to be of morbid force—does not increase the violence of the impulse or effect, any more than continued exposure to the contagion of small-pox or measles, or the introduction of a larger quantity of virus by inoculation will increase the force of their attack. It is equally violent, if after efficient exposure we remove the subject far away; nay, it is a common opinion in the South, and one founded upon long experience and large observation of facts, that an attack which follows removal from the malarious atmosphere during the latent period, is apt to be decidedly more violent and dangerous than if the subject had remained where he received the "seeds of the disease."

2. It may now seem unnecessary to press the argument of the inadequacy of incidental causes to originate the marked phenomena of which I have been speaking, but let us consider it for a moment. If we observe the patient beginning to succumb to the febrific influences at noon of the hottest day of summer, in a hot climate, we shall find him shivering, with his skin shrunk, corrugated and chilly, while he complains of the sensation of profound cold, the thermometer standing at 80° of Fahr. or above it. The most ingenious and able opponent of the hypothesis of the existence of a febrific poison, known or unknown, such as we for convenience' sake designate malaria, Dr. J. Bell, of Philadelphia, regards the familiar variations in the notable conditions of the atmosphere, alternations of temperature more especially, as the efficient causes of the so-called malarious fevers. But in the low country of the southern United States, where these fevers abound, we meet with them in masses, during the warm months of the year, from May inclusive, annually. In most seasons the heat is then protracted and steady, presenting in many of the most sickly localities little variation in the course of the 24 hours. The coolest portion of the whole, (the few hours between midnight and sunrise,) is spent in bed, in a more or less sheltered condition; and few expose themselves until the temperature of the air is raised by the presence of the sun, and that of the body by food. For weeks together the heat of the body is not subjected to a variation sufficient to produce a sensation of coolness, except in those who sleep in the open air or those who bathe in cold water. But these are not known to be more frequently attacked by fever than others; nay, the cold bath is by many considered prophylactic, and the black, who often sleeps out of his house, is less liable to be assailed than his protected master. Again: the month of June, presenting a high average temperature, is remarkable for its impressive alternations. Here we are apt to find the hottest day of the year; here, also, we have some cool weather with annual certainty. The "sheep storm," "the cold week," are familiarly spoken of, as to be usually

expected; a change attributed by one of our most observant meteorologists, I know not how correctly, to a temporary extension of the range of trade winds along our coast. During this very week, (June, 1849,) the thermometer has ranged from 54° to 96°, and on one day from 70° to 92°. Yet June is one of the healthiest months of the year; indeed, the bills of mortality in our Atlantic cities will probably show fewer deaths in June and July than in any other two consecutive months. Certainly it is not marked by any special prevalence of periodical or malarious fevers, nor is their number increased during the cold spells to which I have referred.

Farther: it is matter of notoriety, that in the malarious neighborhood of the city of Charleston, S. C., our most salubrious winds in summer and autumn are those from the east, because, as is supposed, they bring us a pure air from the ocean. They are moist and chilly, however, and excite catarrhs, and rheumatism, and croups, in children and invalids, but they lessen the frequency of our climatic and periodical fevers. These two sets of diseases seem to be placed in a sort of positive contrast to each other instead of being allied, as maintained by Dr. Bell, who says, that "in the winter, a man who gets cold contracts angina—in spring, pleurisy—in summer, cholera-morbus or bilious colic, remittent or congestive fever—in the fall, intermittent"; and that "periodical fevers are most frequent and violent in climates, and localities and seasons marked by the greatest contrasts and alternations in the sensible states of the atmosphere." He adds, also, "worse by far than inspiring marshy air in autumn will be sleeping one night between damp sheets."

Let us inquire, then, where the greatest contrasts and alternations in the sensible states of the atmosphere are found in our own country, and the relation of malarious fevers to these changes. Along the low lands of our southern coast, from the Rio Grande to the Housatonic, these maladies are of frequent occurrence; unfailing in regularity and terrible in violence as we proceed southwardly. They are not met with on the Merrimack or the Connecticut; they prevail fiercely at the mouth of every river opening into the Gulf of Mexico. Now, taking either the annual or the daily range of the mercury, we shall certainly find the thermometrical changes most impressive north of the Hudson. Of the alternations in barometrical and hygrometric conditions, we are not informed.* Let us, again, compare the valley of the Housatonic, or any other river in New-England, with the low lands on Broad or Tiger in South Carolina. I will not speak of Cooper or Ashley, or Savannah or Pedee, whose banks are deadly to the white man in autumn. The sensible atmospheric contrasts are quite as great, nay, decidedly more marked, in the former; the winters of the midland southern country are milder, the extreme heat of the summer noon not greater, nay, not so great; the day no warmer, and the nights by no means so refreshingly cool; yet there we find, with less sensible alternations of atmospheric condition, a constant prevalence of periodical fevers, unknown to our northern brethren.

I know no region so perfectly free from these fevers, and indeed from all affections enumerated among the malarious, as the beautiful and healthful plateau which lies in Henderson and Buncombe counties, North Carolina, between the Alleghanies on their western slope, and the French Broad river or Saliko. In this earthly paradise, human health is at its highest point, both during the cold of winter and the heat of summer. The soil is fertile along the banks of the river, and the air and water of unrivalled purity. But the climate presents impressive and rapid alternations. However warm may be the general noon, the nights are always cool. Where, then, should periodical fever prevail if not here, supposing it to be produced by these contrasts? Yet if the whole population of that "happy valley" should "sleep in damp sheets in autumn," not one would be attacked by intermittent or remittent fever. Such an attack has never happened to any resident there since the first pioneer settlement was made on the expulsion of the Indians. Yet these fevers show themselves there sometimes, and in their most violent forms too, in persons who travel thither from the low lands of Georgia and the Carolinas on one hand, and of Tennessee and Kentucky on the other. I saw two such there; one was a distinguished statesman and orator, destined, had he lived, to the loftiest elevation, nay, already elevated to an acknowledged equality with the highest. His valuable life was sacrificed by the exposure of, probably, a single night only in a malarious locality, about a fortnight before he was assailed by a malignant remittent. Of the hundreds or thousands who pay a yearly visit to this delightful region, subjecting themselves to the strikingly impressive contrast of the temperature of this elevated mountain country with the steaming plains of the Atlantic coast, or the close valleys of the western rivers, it is very seldom indeed that any one who, on his journey thither, has exerted common prudence in the avoidance of an "unhealthy" locality—a malarious spot, for his night's sojourn, has been assailed there. Residing there several summers, I knew of no more than two of this kind, already montioned, both of them distinctly referrible to conscious exposure. Contrast this liability from sensible atmospheric alternations with the risk so well understood in our southern country. If any man of the white race should sleep in the dryest sheets, in the most comfortable apartment of any house on any rice plantation, in the most balmy summer or autumn night, in our southern low country, selecting the season of most steady temperature and greatest freedom from other vicissitudes, I would not hesitate to insure him, for a very slight premium, an attack of malarious fever. If he repeat the experiment a few times, his chance of escape would be annihilated. I appeal to my southern brethren whether I have stated the facts at all too strongly; the inferences to be drawn seem to me clear enough, that atmospheric alternations are inadequate to the production of the familiar effects and that certain localities must possess some obscure but most efficient morbid agency.

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* The country around Boston is liable to more and abrupter variations of temperature, whether we compare those of the several seasons of the year, or the diurnal changes in every season, than the neighborhood of Mobile, Augusta or Savannah. It should, therefore, upon the theory I am combatting, be liable in greater degree to malarious fevers, but it is both comparatively and absolutely free from them. I know not "that the island of New-York differs materially in climate from Staten Island; it is said that the nights are cooler on the latter, from the sea breezes. They are almost of the same geological structure and soil, or at any rate there is no strong contrast; but the difference between them of liability to intermittent fevers is very great and familiarly known.

In Farmington, Conn., where I am now writing, (June 23, 1849,) the winters are long and very cold; the summers, though short, are very hot. In the most sheltered parts of the house, the thermometer for the three past days has risen to 90°, 92°, and 92°, Fahr. The daily range is often great; it was yesterday not less than 22 degrees, being 70° at 6 A. M., and 92° at 3 P. M. During the week it has varied 42 degrees. Here, then, we have as high heat as in the middle districts of South Carolina, or the western part of the State of New-York, and a cold altogether unknown to the former. We have also an impressive difference between the refreshing coolness of night and the noonday heats, which does not exist there; but here malarious fevers are absolutely unknown; there they are annually certain, and extensively endemic if not epidemic.

Lastly. The well-known modes of limitation of malarious diseases, to which I have slightly alluded, are apparently inconsistent with the action of "the obvious and patent, the plain and easily found" atmospheric influences dwelt on by Dr. Bell. For example: the city of Charleston; Savannah; the town of Beaufort; Aiken; the village of Walterborough; Edding's bay, on the sea shore; Sullivan's Island, in the estuary of Ashley and Cooper rivers, and Whitesville, with a thousand other safe summer residences, and "pine land settlements," as they are called, are known to be *absolutely* exempt, or nearly so—*comparatively* so in the highest expressible degree—from the endemical fevers which ravage our whole southern low country. *Sleep* within well defined precincts at each of the above named points, and you may indulge yourself with impunity in daily rides and walks in every direction around; venture to sleep out of the "charmed circle," and you will be assailed by periodical fever almost as certain as you will be vomitted by ipecac., put to sleep by opium, or rendered insensible by ether. I cannot admit that the influences which thus act, or fail to act, are by any means "patent or obvious." Some of the points mentioned as healthy are remarkable for their atmospheric moisture; others for the impressive and agreeable contrast which they present in the refreshing coolness of their nights, after burning days of glare and sunshine. This is strikingly true of Sullivan's Island and Aiken; one of which is noted for a high, dry air, the other for a very damp atmosphere. Let any one compare them with the upper portion of New-York island, climatically, and point out, if he can, in what atmospheric condition, thermometrical, barometrical, or hygrometric, consists the difference between them, which renders the latter so much better situated in so many respects, so much more liable, nevertheless, to periodical, malarious, intermittent fevers. Nay, I think it would be difficult upon any "obvious" grounds, and setting aside the hypothesis of a specific poison, to explain the immunity of one end of Manhattan Island and one end of Sullivan's Island, and the alleged liability of the other end of each to this class of diseases. I have not laid any stress here upon the stories told of the liability of one side of a street or road, one side or one room of a house, nay, one side even of a ship, to these fevers, while the opposite side was free; nor upon the immunity of a ship's crew stationed a cable's length from the shore, while those who ventured after night on land were assailed; nor upon the occurrence of ague in the fœtus; all which rest upon very fair authority, and if true, are absolutely unaccountable upon any known or obvious modes of causation. The literature of malaria has been made almost as wonderful as that of mesmerism, and all who are sincerely anxious to arrive at the truth should be particularly careful upon what evidence they admit such facts as the above, some of which are probably true, but ought to be more clearly made out and more strongly confirmed than they yet have been.

3. The third argument for the specific nature of the cause of periodical fevers is drawn from the peculiar efficacy of the great specific cinchona. Like all other diseases, it is true, these present infinite diversities of grade and tenacity. Many cease spontaneously, many are easily arrested by any mode of interference and perturbation, bodily or mental, moral or physical. Fear, hope, joy, disgust, faith, on the one hand, on the other, venesection, the cold and hot baths, emetics, purgatives, bitters, opiates, all cure intermittents. In some districts, whiskey is the great remedy; in others sage, the ancient panacea—"*Cui moriatur homo, cui salvia crescit in hortis,*"—

is implicitly trusted to. Dogwood, logwood and spider's-web have their undoubting advocates. Remittents, however closely allied in cause and history, have been found much less manageable, and indeed, in some of their varieties, constitute very terrible forms of fever. What is most singular, however, is the fact that some of the worst of these, the most fatal in themselves, are most amenable to one particular remedy, and thus the mortality and obstinacy of the attacks are found to be, if not contrasted, at least not correlative. The true explanation of this apparent paradox seems to be, that ordinary remittents are apt to present certain complications which modify their character so strongly as to remove them from the relevant adaptation of the specific above alluded to—cinchona. Determinations to particular organs, highly irritative, inflammatory and quasi-inflammatory, are mingled with the febrile condition from the onset, which interfere with, control, or prevent the peculiar effects of the great febrifuge. Under these circumstances, in which, for whatever reason, the immediate administration of quinine is not followed with certainty by immediate benefit, as we know no other specific to substitute for it, we lose time of necessity, in efforts which differ among the several classes of practitioners, to remove, or palliate, or counteract these superadded local derangements, to which many attribute the continuousness or pertinacity of the paroxysm, and its tendency to throw off, or exhibit less and less clearly, the character of periodicity originally belonging to it. If we succeed in these efforts, and procure an intermission or a marked remission, we put an end to the attack, without farther delay, by a full dose of quinine. Nay, it has become the rule not to wait always for such change, but to experiment with the great remedy even in the most unpromising cases; and this is often done with the most gratifying success. But no such preliminary management is necessary when the case, however violent, is from the first, of merely congestive character. You need not here delay a moment. Cinchona alone is requisite, it is almost uniformly successful: in bad cases it is the only thing that offers any reasonable hope. So also in intermittents, pernicious, malignant, congestive, it is almost all-powerful. The first interval is enough; if the first paroxysm is not fatal, your patient will probably recover, provided you are well supplied with quinine and fearless in its exhibition. There is no single point on which the medical profession, in all its divisions and subdivisions, is so fully agreed as this. The worst cases, if simple and unmingled with complications, will yield to this remedy, and to nothing else. The mildest cases, in which its influence is disturbed or set aside, will prove obstinate, and may be fatal. The former are most purely febrile—we say malarious; and we infer a certain relevancy or definite relation between the causative poison and its antidote or counter-agent.

This relation or relevancy is farther shown, and very impressively too, by the influence of cinchona as a prophylactic. This influence is not exerted through the medium of any notable or observable effect upon the system, but most obscurely. There are other remedies known as prophylactic doubtless: alcohol perhaps, and if so, by its stimulant property: tobacco perhaps, and if so, as a narcotic; opium, perhaps, and in the same manner more efficiently; sulphur, as is alleged, and if so, as a purgative and diaphoretic; turpentine, tar-water, and the like, and if so, by their diuretic action. But small doses of the sulphate of quinine, which, so far as is "patent and obvious," impress the organs and functions in no discernible manner, affecting neither the circulation, secretions, nor excretions, will enable the subject safely to undergo exposures otherwise fatal.

It is curious to remark, too, that cinchona, which thus interrupts the progress of periodical or malarious fever, arrests it when forming, and even prevents its access, fails to act permanently upon the singular predisposition to recurrence which belong to its history. There is no disease so strongly disposed to return as this form of fever; yet no patient relapses while quininized, though many are attacked again as soon as quininism subsides. In other words, the influence of the febrific poison upon the constitution, though less forcible, is more tenacious and persisting than that of the antidote. Fortunately we are in possession of another remedy, in which these qualities are, so to speak, reversed. The experience of the best European authorities, which coincides with my own, goes to prove that arsenic far more completely obviates the tendency to recurrence of protracted intermittent than quinine, while it is infinitely less efficient and useful in the management of the disease when present.

The facts, then, which, at the risk of some repetition, I have thus brought together, will, I think, if carefully considered, be found abundantly to establish the position that the cause of periodical fever is a specific poison :—

Its influences or modes of development are peculiar and characteristic :

Its phenomena are not explicable by reference to the agency of any known causes :

It is controlled only by the obscure, undefined and unintelligible action of specific remedies.

The next step in our discussion leads us to investigate the nature of this specific poison—to inquire whether it is organic or inorganic; animalcular or of vegetable growth; an effluvium or a gas.

The received hypothesis of the existence of any such agent, whichsoever of the above suppositions we may adopt, is full of difficulty, it must be admitted. The embarrassments which hang about it are dwelt on and well displayed by several recent writers, at the head of whom stands Dr. Bell, of Philadelphia, already frequently spoken of in terms of cordial and well-deserved respect. It remains to be seen whether any substituted hypothesis is more explanatory, freer from difficulties, or better entitled to our belief.

The views of Dr. Bell, like those of Prof. Dunglison, are rather negative than positive ; they express dissatisfaction with the current opinions, whether, as laid down by Lancisi, or Macculloch, or Ferguson, but propose nothing definite in their stead. The position taken by the first named author since 1825, is maintained (in 1849) by Dr. Gayles, in a very instructive essay in the American Medical Journal for January, carrying out the argument in minute detail, and collating with great industry a large mass of valuable facts.

In 1828, Dr. Jones, of Georgia, reproduced in terms the ancient theory—"that *moisture* under different states of temperature, acting upon the human frame under different states of the cutaneous functions and muscular relaxation, is to be regarded as the sole cause of intermittent and remittent bilious fevers." This axiom is definite enough and comprises all the points labored by the writers above mentioned. It is easy to show that it is overlaid and encumbered with objections quite as great as those which it is offered for the purpose of evading. The low alluvial lands of Louisiana, free, according to Nott, from these fevers; and her bayous, remarkable, according to Cartwright, for their salubrity, abound in moisture. The same assertions are made concerning the extensive tracts now under drainage by the State in Hyde county, North Carolina, and the great Dismal Swamp. In the vast extent of country included within these limits, moisture must surely have an opportunity of acting upon the human frame under all different conditions imaginable. If then, these fevers are not numerous and vehement there, something else is wanting to their production.

Equally untenable is the contrasted doctrine advocated by Ferguson,—that "*paucity of water* where it has recently abandoned is the only contingency necessary in a warm climate, to the production of malarious fevers or their cause." In Africa, as travellers inform us, the very termination of the dry season, the very commencement of the rains is the precise period at which fevers begin their sway; the influence of the abundant moisture descending through the hot air being felt, as we are told, at once, or in an almost incredibly short time. In our own country it would be idle to speak of paucity of water, either absolute or comparative, in reference to our inexhaustible lakes, ponds and inland swamps, in the neighborhood of which malarious fevers annually prevail.

Of the electrical causation of these fevers suggested by Murray and others, and the modification proposed by Folchi, usually alluded to as the thermo-electrical theory, in which the whole train of phenomena are ascribed to the combined influences of abnormal calorification and disturbed electrical equilibrium, I shall only say that they are presented to us in too vague and indefinite a shape to justify our admission of them. The vast proportion of the earth's surface affected; the great diversity of soil, climate, weather and indeed all atmospheric contingencies with which the presence of these fevers is associated, preclude the possibility, it would seem, of any similar thermal or electrical states, either of the air or of the bodies of those attacked. Yet the facts accumulated in support of these views are interesting, and may be destined to assume a greater degree of importance in the future discussions of the subject than we can venture to accord to them now.

The gaseous nature of the cause of periodical fevers has been ably maintained by Professors Gardner and Daniel, who consider it to be sulphuretted hydrogen. In a very ingenious thesis, recently presented to the New-York University by Dr. Leavenworth, the claims of carbonic acid are strongly set forth: and several of our western brethren are satisfied that the evil agent is nothing but carburetted hydrogen. Not to enter minutely into the controversy, I will merely state that an insurmountable difficulty in the way of either of these suppositions lies in the great variety of localities and circumstances geographical and geological in which we meet with the effects of the alleged cause. We find these fevers on the cold fens of Holland and Lincolnshire, as well as the rich rice fields of the sunny south; on the smiling hills which overlook the majestic Hudson, as well as among swamps and marshes; on the lime rock of Tennessee and Kentucky, the clay of Alabama and South Carolina, the sandy barrens of her northern sister, and the granite and sienite of the Empire State; on the volcanic tufa of Civita Castellana and the Roman Campagna, and in the very crater and on the sides of extinct volcanoes, as at Bolsena and Milo. If sulphuretted hydrogen be eliminated in an African jungle or on the borders of a sluggish creek in Virginia, whence does it arise in some of the contrasted localities so often enumerated? Why is not fever, on one hypothesis always endemic at the White Sulphur and Sharon Springs; and on the other at Saratoga, Seltzer and Vichy? Why is not the presence of some of these gases always demonstrable in a malarious atmosphere? Having ascertained the poison, why cannot we at will produce with it an attack of fever of one of the known types—in other words, how is it that the observed morbid effects of none of the irrespirable gases resemble any known form of fever?

We are encouraged in our search after atmospheric influences as causes of disease since the discovery of ozone by Berzelius, and the observation on the part of Schöenlein, of its presence in the air during the epidemic prevalence of influenza. Of this widely-extended and most familiar malady it really seems to be one of the efficient sources. In this country too some of our professors have ascribed to it, hastily I apprehend, the generation of cholera. If this active state of the atmospheric oxygen does really produce influenza, we must not omit to remark its relation to that well-characterized intermittent affection of the frontal sinus and antrum, of which I spoke above, and which is of so frequent occurrence, so painful and annoying, and so obstinate that I wonder at its having received so little attention from medical writers. Some I think allude to it vaguely as "a masked intermittent" classing it with neuralgias; others have probably referred to it under the title of "brow ague." I have found it, though not readily yielding to any remedies, yet on the whole, best palliated and controlled by the free use of the sulphate of quinine.

The following objection seems to me fatal to all the above hypotheses of causation equally and alike, unless when they admit of being resolved into the familiar belief of a specific poison, paludal, or fungous or animalcular. All patent and obvious agencies "must produce, logically, patent and obvious effects." Changes of temperature must make notable impressions on the system; irrespirable gases cannot be breathed without notable inconvenience or derangement of system. But when a poison is applied, it is absorbed and retained, and passing into the organism, finds in due time a reception upon the tissues, or within the fluids it is adapted to affect, if inorganic. If organic, a single dose may be large enough to be promptly efficient, but more generally an interval is required for its increase, propagation and multiplication. These are principles upon which I need not dwell. Let a subject visit on a pleasant summer evening a field in our southern low or middle country, especially in the neighborhood of a rice-reserve or a stream, and sleep there; or let him rest under a tent in the desolate plain near the ruined temples of Pæstium; he may rise the next morning in undisturbed health, and continue perfectly well for a fortnight or three weeks, and then without warning, fall suddenly a victim to an overwhelming attack of fever, congestive or inflammatory. To render this mystery, if possible, still more mysterious, and laugh to scorn all attempts at explanation by an imagined accumulation of carbon in the system, a gradually augmenting determination to or congestion in the portal vessels, the vena cava, the vessels of the spleen, of the cerebro-spinal axis, or of any other organ or tissue, let such a subject, a few hours previous to the explosion of the febrile symptoms, take two or three full doses of cinchona or quinine, bringing on some fulness of the head, some buzzing in the ears or dimness of vision, and he will—with as much certainty as any thing established in therapeutics—escape the threatened attack; or avert a second if he has been surprised by a first, and favored with an intermission. But the counter-poison here employed is not known to eliminate or discharge any thing from the body by any outlet; we cannot affirm that it promotes the excretion of retained or accumulated carbon, hydrogen or nitrogen, through either the lungs, the liver, the kidneys or the skin; and yet it is a remedy infinitely more available than the most active evacuants or so-called depuratives. Nor is it easy to conceive how it corrects the morbid impressions made upon the organism, either thermally or electrically; its influence seems purely antidotal, and implies the previous presence of a definite poison.

We have increased gratuitously the obscurity of our present inquiry by the universal habit of ascribing too much to the agency of a cause whose very existence is matter of inference, however rational and logical that inference may be, and its alleged source and nature altogether hypothetical. Ferguson and Bancroft, and many others, Trevin among them, confound yellow fever with malarious diseases; Cook places typhus here also; and some Western writers have not hesitated to include cholera asphyxia in the same category. The ridiculous extension of the list in Macculloch needs no comment; but I will content myself with stating my belief that we have no right in this controversy to refer to any other morbid affections than intermittent and remittent fevers, in which periodicity is the prominent element, and in which the observance of regular type and period can be clearly traced, calculated and predicted. Even hepatitis, dysentery and dropsy, so familiarly comprised under this head, should, in proper strictness, be rejected as at least doubtful; nay, as in all probability, the secondary effects of malarious fevers, or the result of coincident contingencies. It is but a single summer since an epidemic dysentery of great virulence and large proportional mortality prevailed over a vast extent of territory, from the Lakes and the St. Lawrence to the Atlantic coast; from the Merrimack to the James river; affecting many districts celebrated for their usual healthfulness, and especially portions of New-England, hitherto free from the suspicion of malarious impurity, and unconscious of intermittent fever since the incursion of the Pilgrim Fathers. If we ascribe this disease to malaria on the banks of the Delaware and the Potomac, what shall we say gave rise to it along the rocky shore of Connecticut, or on the cold and barren soil of the interior of Rhode Island?

The strength of the argument in favor of the *organic nature* of malaria lies in the history of the latent and intercurrent periods of the fever which it produces. It is easy to show the failure of the received views to explain these phenomena; indeed all pathological writers feel and acknowledge frankly this defect. Now, if we suppose with Prof. (J. K.) Mitchell, an organized germ of vegetable character introduced, *qua data porta*, into the system, we may well imagine that its growth and multiplication will require a certain progress of time, during which its reproduction will augment the quantity of deleterious matter into an efficient dose. Thus we account for the incubation of the attack. We further imagine then, either the death of the first generation of fungi, or the elimination of the great mass of them through some of the emunctories, to explain the interval of intermission; and the birth and development of successive generations to render intelligible the long train of tenaciously recurring paroxysms. We imagine too that the several types of intermittent are owing to the variety of forms of cryptogamous vegetation, some of which propagate in one period and some in another. This hypothesis is indeed most ingeniously conceived and ably maintained; it is supported by a large mass of facts, to which accumulations are almost daily making and will apply, as stated above, to a great portion of the history of malarious fever. But it does not entirely escape or surmount all the difficulties of the subject—nay, some remain which threaten to be fatal to it, notwithstanding all the genius and learning which its author brings to its support. Thus, for example, the relations of malaria—be it what it may—are strongly, and as regards its generation and production, exclusively to *place*. But it is just as tenacious in its adhesion to the person of its subject; it seizes upon him often after very brief exposure; it enjoys within the animal or rather exclusively the *human* organism a congenial habitat where it finds all the material of growth and reproduction, and from which it is dislodged with great difficulty. Except in this relation to person, it is not transferable; it is never transported by any known mode, any variety of fomites, nor when produced in one patient does it affect another by any closeness of propinquity. But if propagated within the body, tenacious of life as it is, how can it fail to pass out through some of the emunctories into the air surrounding it; and if diffused therein, how can it fail to attack a subject just as readily as when propagated or created out of the body? This never happens, however, and if it did happen, would be contagion or something closely analogous.

Again, the books are full of wonderful stories of the fixity of malaria on certain occasions, though at other times easily wafted on the wings of the lightest zephyr. We read of one side of a road, a street, a house, a ship, being sickly while the opposite is quite free from fever. These interesting curiosities of malarious literature are as well attested as other wonders of nature, but as I have already said, require examination and confirmation, at any rate, every one is aware of the apparently capricious action of the cause of periodical fevers, whatever that cause may be. The received theory is the butt of much sarcastic criticism in reference to this matter; but it does not seem to me to enjoy by right a *monopoly* of the taunts lavished on our ignorance of the details necessary to a clear and full understanding of this grave topic. If malaria be fungous, it must either be breathed or swallowed, absorbed by the pulmonary or gastro-enteric mucous membrane, or by the cutaneous surface; for all this, it must be diffused in the air. When thus diffused, why does it not cross a road or street, or piece of water, invading a ship "a cable's length from the shore," or spread throughout a house, a vessel's hold or cabin? Odors and dust are thus spread; smoke and vapors disperse themselves; gases permeate each other; why should not fungi, smaller than some of these particles, larger than others, obey the movement of currents of air in which they are floating?

If, with Dr. Nott, of Mobile, we adopt the animalcular nature of malaria as its most probable modus extendi, we are hedged in by the same difficulties. The supposed animalculi are no less capricious in their voluntary movements than the inorganic effluvia of Macculloch and Bancroft. Generated in a given spot, they leave it readily to attack an individual; but when abounding in the body of one person they will not leave it to assail another. They show similar caprice of resolution occasionally in adhering to fixed positions mentioned above.

Dr. Nott recognises and points out the marked difference in many points between yellow fever and malarious remittents and intermittents, the former of which is clearly separated by cause, history, symptoms and effects, from all the periodical fevers. He renders highly probable the animalcular—he proves the organic origin of yellow fever. It is transportable in atmosphere, and in fomites. It is transferable not only from place to person like malaria, but from place to place and from person to person. It is strongly contrasted with malarious fevers by exhausting the liability to its recurrence; in this respect resembling other known contagions. Yet it is hard to understand why it should adhere exclusively to one side of a ship, or why, when it does make progress, this should occasionally be so slow and seemingly reluctant. In towns it extends its domain, sometimes quickly, sometimes otherwise; going "like the tax-collector from house to house," and thus gradually widening "the infected district." We may, it is plain, refer here to the independent volition, the action from inclination of creatures capable of choice, an explanation denied us as to a fungus or an inorganic effluvium. But we must take for granted prodigious strength of wing proportionally in these minute creatures to enable them, if they rise at all in the air, to resist the movement of a breeze or strong current.

It is by no means my purpose here to go over the trite ground of a defence of the views of malaria, which, with a large body of the profession I have received, and with which every reader must be familiar. My object has been merely to collate and compare the several hypotheses that have been offered; to show that none of them are free from intrinsic difficulties; none of them fully explanatory; none of them entirely satisfactory. I conclude with the suggestion that the word malaria may still be very conveniently and properly retained to denote an unknown cause to which we ascribe certain effects, which as yet are not proved to be the result of any discovered or obvious agency.

Art. III.—*An Account of a Malignant Epidemic,* (Congestive Typhus,) *which prevailed in the early part of* 1849, *at and in the vicinity of Mecklenburg.* By Nelson Nivison, M. D.

I propose, in this article, to give a short account of a malignant epidemic with which we have recently been visited. In doing this, I do not propose to give a description of a new disease; I believe it has been frequently recognised, and sufficiently described by many of our best American writers. Yet it is sometimes interesting to the profession to know to what extent, the time, and in what particular locality, a malignant disease with which we are already acquainted prevails; especially in view of the fact, that notwithstanding all that has been said and written upon this type of disease, there yet remains, owing to its having generally been confined to particular localities, a very considerable number of practitioners, who, if not entirely ignorant of its existence, possess but a very limited knowledge of its essential nature, its characteristic phenomena, and as a matter of course, of its appropriate remedial management. I confess that, although I had read copious extracts from Dr. Minor's Essay on "Typhus Synchopalis," "Spotted Fever," &c., and much of what has been said of "Cold Plague," "Typhoid Pneumonia," "Head Pleurisy," "Pernicious," "Congestive" or "Malignant Remittents," "Congestive Typhus" or "Typhoid Fever," and especially Dr. Dickson's account of an epidemic that prevailed in 1806, in Medfield in Massachusetts, whence it spread gradually, extending itself winter after winter throughout New-England, into Canada and the middle states, progressing from village to village, and from one portion of the country to another, till, in 1813, it reached Philadelphia." I could form no adequate idea of the rapidity and certainty with which it sometimes destroys its victims, if not speedily arrested by the appropriate treatment.

The disease in question commenced its ravages about the middle of February last, some ten or twelve miles north of this place, in the adjoining county of Seneca, and in a very few days from the same time, a number of cases occurred in this vicinity, and especially some five or six miles south of us, and within a week of its commencement, it had visited all the intermediate neighborhoods. It was confined within the limits of a section of country some fifteen or twenty miles long in a north and south direction, and from four to six miles wide. This region of country presents nothing remarkable in its topography. It is situated principally in the county of Tompkins, in the midst of one of the finest agricultural districts in central New-York, about midway between the heads of the Seneca and Cayuga Lakes. It is neither level nor very uneven. If celebrated for any thing, it is for the richness and fertility of the soil and the general salubrity of its climate. The principal diseases which have prevailed within the last year, have been measles, whooping-cough, and general catarrhal affections, and during a portion of the year we had dysentery, bilious remittent, and in one or two localities, intermittent fever. I would likewise mention in this connexion, that during the month of March of the last year, there occurred in the immediate vicinity of this village, a limited number of cases of a disease resembling, in almost all respects, the one I am about to notice. In this instance, however, it seems to be strictly endemic, extending but a few miles from this place in any direction. The mortality that attended this limited number of cases was perhaps relatively greater than during its recent visitation. This may be owing in some measure, to the fact that physicians were less familiar with its phenomena, and consequently with its proper management. But I think it was mainly due to the fact of its having prevailed but a short time, attacking a limited number of persons, and those few in a fearfully malignant form. Whereas, in the latter case, it continued to prevail to a greater or less extent for about three months. During the first month it was sufficiently malignant, but in the two latter, it attacked a much larger number of persons, and generally in a much milder form ; during the last month of its prevalence it gradually became blended with other diseases, to which it imparted more or less of its peculiar characteristics, and finally disappeared altogether, so that towards the close, fatal cases rarely, if ever, occurred.

The disease commenced during the extreme cold weather of February, the mercury being from 12 to 20 degrees below zero. The persons most usually attacked were those in middle life and children, although no age seemed to be entirely exempt. It oftener attacked males than females. It would appear that a previous state of debility or indisposition had much to do in predisposing the system to an attack of this disease, and we think we are safe in assuming generally: whatever the essential cause of the disease may be, where it exists in a sufficiently active state to produce the disease at all, the *exciting causes* are those that tend temporarily to debilitate the vital organs, and thus cause them to perform their functions imperfectly. Hence the fatigue that results from over-exertion, was often followed by an attack of the disease. Mental anxiety was another exciting cause. But it is believed that no single cause contributed so much to excite the disease in persons predisposed as the protracted influence of *cold*. Persons who were necessarily much exposed, and especially those in the lower walks of life, who had not the means of affording themselves adequate protection from the severity of the season, were most frequently found among its victims.

Another evidence that the influence of cold had much to do in the production of this disease, was the fact that during the whole time of its prevalence, simultaneously with, or immediately following, a change from a higher to a lower temperature, was the occurrence of a considerable number of new cases.

The precise mode of invasion differed exceedingly in different cases, the attack not unfrequently came on without any premonitory symptoms whatever; usually however, it gave indications of its approach by symptoms, in many respects resembling those that precede the ushering in of an attack of an ordinary remittent, superadded to which, there was generally a feeling of extreme anxiety, oppressed respiration, of great and often alarming prostration, giddiness, extreme dulness of the intellect, not unfrequently the first indication of an attack was a severe *pain* in some part of the body, usually the extremities; sometimes it was confined to a single joint of a finger or toe. Soon the surface became cold, the extremities livid, the blood often left the superficial vessels of the face, giving the countenance a sort of *doughy* paleness. In some cases, numerous petechial spots made their appearance upon the face, neck, and surface of the body. The conjunctiva was usually highly injected; more or less pain was always complained of in the head, usually in the supraorbital regions; this was often very severe, and accompanied, as it often was, with great intolerance of light and sound, and delirium, which was frequently wild and furious. It was often exceedingly difficult for the inexperienced practitioner to persuade himself that he had not met with a case of genuine phrenitis. Let him beware, however, of an error of this kind, for it would most assuredly be a fatal one. Violent clonic spasms were a frequent accompaniment of this pain in the head; often, however, the patient was comatose, and the symptoms approximated somewhat to those of apoplexy.

The pulse was variable, but alway weak, usually quite frequent, but sometimes remarkably slow, not being over forty in a minute. An intermitting pulse was often observed.

The tongue at the commencement was frequently considerably swollen; usually it was covered with a thin white fur, which became thicker and darker as the disease advanced; sometimes the tongue was clean and of a bright red color. Fainting, nausea, with occasional vomiting, was present; the ejections from the stomach being generally mixed with bile.

From a careful attention to the order of development of the symptoms, it would appear that the brain and nervous system were generally the first to suffer, and that the disturbance of the circulating and respiratory systems, were measurably the *results* of this nervous derangement. Often, however, the functions of all the vital organs were so nearly simultaneously affected, that it was difficult, if not quite impossible, to determine which was first in the order of sequence. Nor was it very material, for in the severe cases, the "congestive" symptoms increased in intensity, from hour to hour, with such rapidity, that unless the morbid train of symptoms was speedily arrested by the appropriate remedial management, a fatal coma, with entire insensibility, loss of circulation and respiration, speedily came on, and death closed the scene, in from six to twelve hours from the commencement of the attack. These extreme cases, however, were rare. In a great majority of cases the symptoms were more slowly developed, and in those cases a fatal termination in the early stages was by no means frequent. Usually, after the first shock given to the system had subsided, and reäction was established, a low grade of fever, characterized by more or less distinctly marked remissions, would follow for several days. This fever was always of a decidedly *typhoid* character. Active antiphlogistics were in no case tolerated. Sometimes prolonged and extremely exhausting cold sweats attended this stage of the disease. These were often extremely troublesome during sleep. If the patient was allowed to sleep a few minutes too long, the sweating was profuse, he was aroused with great difficulty, and awoke with a feeling of extreme exhaustion.

In some cases there appeared to be no *febrile* reäction whatever; it was only by the aid of the most active stimulation, that the vital organs could be induced to perform their functions at all, and often then in the most sluggish manner. Some cases were noticed, laboring under a severe form of this disease, in which the nerves of general sensibility were nearly paralyzed; for although the patients were hourly in danger of losing their lives, no pain or uneasiness was complained of; the pulse could not be raised above forty or forty-five, the respirations twelve to fourteen per minute.

It may seem almost incredible, what enormously large doses of the most actively stimulating articles could be borne with impunity; from 20 to 30 grains of the sulphate of quinine, with proportionately large doses of camphor, carbonate of ammonia, alcoholic stimulants, etc., were often given in the course of twenty-four hours. One patient, that ultimately recovered, was kept in this active course of stimulation for many days in succession, often taking a pint of brandy in from four to six hours without any inconvenience. These doses were not only tolerated, but imperiously demanded. With all this, the surface was uniformly cool, often *cold*, never warm, unless warmed by artificial heat. On several occasions in the patient above alluded to, stimulants taken into the stomach and applied to the surface, seemed to have exhausted all power; the mucous surface of the stomach seemed to have lost its sensibility, and was no longer capable of absorbing or acting upon its contents; the most active stimulants produced no effect. The pulse rose rapidly from 45 to 130, then became intermittent, and finally almost imperceptible, the surface entirely cold. All that remained of respiration, was an occasional hurried, convulsive gasping or sighing. It really seemed that the patient must succumb. In this emergency, an enema composed of six ounces of brandy, with a strong infusion of capsicum, was given. This was successful in rousing to action the small amount of vital force that yet remained. Under its influence the stomach was again excited to action; its contents were thrown off by vomiting, which, by its revulsive effect, gave a new impetus to the nervous and circulating systems, under the influence of which the former sluggish action was restored, and things went on as before. A similar state of things occurred several times in the course of a protracted illness, during the whole period of which no local organic disease could be detected, and no febrile action established, the disease seeming to be throughout its entire course of a purely adynamic character. This case, though no *fever* was present, was yet characterized by very distinct *remissions.* These remissions occurred in the morning, followed by exacerbations, (not of fever,) but of *prostration and debility*, which followed the course of an ordinary exacerbation of fever; in that it commenced towards noon, increased till evening, was greatest near midnight, and declined towards morning.

The *prognosis* in this disease depends mainly on the treatment. The prompt application of the proper remedial measures, was generally successful in arresting the disease and restoring the patient to health in from two to twelve days. Indeed, in most cases, even those of the gravest character, if a proper course of treatment be early *resorted to, and energetically and perseveringly applied*, little danger of a fatal termination need be apprehended, so long as the disease remains uncomplicated.

But it must be obvious to the pathologist, that so severe a shock as is given to the system during the cold, or congestive stage of the disease, cannot often be borne with entire impunity, and that the result must be a greater or less degree of organic mischief, and accordingly, we find cases protracted to an undue length by the occurrence of various *secondary* affections. The particular organ or organs thus secondarily affected, depends, of course, on the predisposition of the system, the weaker parts, making the least resistance, are soonest overpowered. A temporary suspension of functions, followed by a greater or less degree of inflammatory action, of a decidedly asthenic character, is the consequence. Thus, if the lungs be the weaker organ, we may have pneumonia; if the bowels, enteritis, etc. Some writers, apparently overlooking the primary affection altogether, have given various names to this peculiar form of disease, which have reference only to some of these complications. Hence we have "typhoid pneumonia," "head pleurisy," and a host of other names of a kindred character. Even so slight a circumstance as the occasional appearance of petechial spots has been obliged to contribute to the nomenclature. Hence "spotted fever," notwithstanding the fact that five-sixths of all the cases have no "spots" at all. Any names of this kind, being derived from some fortuitous circumstance by no means essential to the disease, are decidedly objectional, and calculated to mislead; although it cannot be denied that these secondary affections, occurring in the debilitated and adynamic condition of the system peculiar to this disease, are often more troublesome than the original disease itself, and frequently call in requisition the most accurate discrimination, the most valuable resources, combined with that peculiar aptitude in their application which so readily distinguishes the truly scientific physician from the boasting quack or the mere routine practitioner.

One peculiarity of this disease was the great tendency to *relapses.* Often after the patient was apparently out of all danger, from some slight cause, severe, and in some instances, fatal relapses occurred. One of the most fruitful of these causes was a change from a higher to a lower temperature. Several of these relapses would sometimes occur in the same patient. Fortunately, however, they were generally less severe than the first attack.

This disease, like other epidemics, impressed more or less of its peculiar characteristics upon other diseases that were prevailing at the time of its occurrence, a decidedly *typhoid* tendency being present in almost all cases, and a corresponding modification in their treatment became necessary; even purely inflammatory diseases required a much less energetic antiphlogistic treatment than usual.

A singular case of its *alternative* with parotitis, which was prevailing at the time, came under the observation of the writer. The material points of which were as follows:

M. H., æt. 20, occupation a painter, was attacked with the prevailing epidemic Feb. 20th; had been from home the day before; while absent, was taken with pain and swelling in the region of the parotids, and from the fact that mumps were prevailing in the family at the time, no doubt was entertained as to the nature of the local symptoms. When I visited him the next day, the region of both parotids was much swollen. Early in the morning, symptoms of a violent attack of the prevailing epidemic set in; the family, however, supposing that mumps was the only difficulty, were not immediately alarmed, and it was some four hours from the commencement of the attack before I saw him. I then found him with cold extremities, pulse scarcely perceptible, had complained of great pain in the head, eyes red, talking incoherently, the trunk and extremities thrown in almost every variety of position by violent spasms, the jaws much of the time spasmodically closed, had not swallowed for three hours; some fluid was introduced into the mouth, and efforts were made to induce him to swallow it; as soon however, as it reached the glottis, the most violent spasms were induced, which lasted for some minutes, several of these attempts were made and with the same result. Finding all attempts to introduce medicine into the stomach to be ineffectual, the congestive symptoms in the mean time increasing to an alarming extent, I determined for a time to abandon them, and rely upon external means. A large sinapism was applied to the epigastrium, cloths wrung out of hot water applied to the throat, hot bricks, blocks of heated wood, and bottles of hot water, were placed near the patient, stimulating frictions were applied to the spine and extremities, and finally, the symptoms becoming more and more alarming, a current of hot vapor was passed into the bed; the spasms soon subsided, the pulse, which for a time could not be felt at the wrist, was again perceptible at intervals, a tolerably free perspiration came on, and the vapor was discontinued; some stimulants were now swallowed; the patient continued to revive; in two hours would answer questions; complained of violent pain in the head; occasional delirium; would strike his head violently with his first, tear out his hair, &c. Two grains of opium were now administered, which afforded great relief. *The swelling about the throat subsided rapidly*, and in twenty-four hours from the commencement of the attack it had entirely subsided. Indeed it disappeared so suddenly, that some doubt was entertained whether in reality he had mumps at all. The disease was treated with opium, camphor, quinine, &c., and at the end of the first week had nearly subsided; about this time the swelling *reäppeared* in *one* of the parotids, continued about the usual time for mumps, and gradually subsided; about this time, and while the patient was yet in a debilitated condition, upon a sudden change of temperature, he was seized with a relapse of the original disease, which was quite equal in severity to the first attack; this was treated upon the same general plan as the first, with the like result, subsiding about a week from its commencement; about this time the swelling made its appearance in the parotid of the opposite side, continued for three or four days, and disappeared. From the peculiar manner in which these several swellings disappeared and again reäppeared, throughout an interval of more than three weeks, some doubt was entertained in regard to its real nature; and had it not been for the fact that about the time of the subsidence of the last swelling, it again made its appearance in one of the *testicles*, in the manner peculiar to this disease, doubts might still have remained whether mumps had any thing to do with it.

In regard to the treatment of this disease, we think we are safe in affirming that almost every thing depends upon insuring, at the earliest practicable moment, a *reäction*; this being once effectually secured, in a great majority of cases the after treatment is comparatively easy; whereas, without it, it is believed that many otherwise simple cases would tend speedily to a fatal termination. I would by no means be understood to convey the impression that no danger need be apprehended after this reäction has been once secured. For if it be important in the first place to obtain it, it is equally important to *maintain* the favorable impression throughout the future progress of the disease. In a majority of cases this is not difficult. The well-timed use of the same class of remedies that were found successful in the first instance in bringing on the reäction, was found sufficient to maintain it. This, however, was far from being universally the case. In many cases of the graver forms of the disease, a complete reäction was with difficulty secured at all, and if fortunately once obtained, the tendency to relapse into its former state was so great, that nothing short of the most energetic and assiduous application of the appropriate remedial measures, for a considerable space of time, was sufficient to maintain the equilibrium of the nervous and circulating systems, and prevent the patient from sinking rapidly into a fatal stupor. Often, when all things were moving steadily in the right direction, a delay or neglect of the proper remedies for a few hours, through the indiscretion of incompetent nurses, was sufficient to place the patient entirely out of the reach of remedies.

The particular remedies to be made use of in order to secure this impression, will probably vary somewhat, according to the prejudices, taste or predilections of the practitioner. It would hardly seem necessary, in speaking of the treatment of a disease so purely asthenic in its character, to make mention of blood-letting. Some practitioners, however, disregarding entirely the *ataxia spirituum*, and considering the congestion of the internal organs as the only essential element in the disease, have sought to make the desired impression upon the system by directly diminishing the quantity of circulating fluid, supposing thus to relieve the congested organs, and invite the remaining portions of blood back to the periphery of the body. Perhaps the best commentary upon this is, that almost invariably, where it has been practised, a fatal termination of the case speedily followed; and even in those very rare cases, of a mild character, where recovery slowly followed venesection, it is confidently believed *that the recovery would have been much more rapid without it.*

In general, those remedies that stimulated the surface and conveyed external warmth to the body, were found most useful in this stage of the disease. The application of a large mustard plaster to the epigastrium, highly stimulating frictions, bottles of hot water, hot bricks, flannel cloths moistened with hot spirits of turpentine, dry cups applied along the spine; remedies of this kind, especially if encouraged by the free administration of warm diluents, and if necessary warm brandy and water, spirits of camphor, etc., rarely fails in a short time to produce a gentle perspiration, followed by a marked abatement of most of the symptoms. Often the free administration of warm drinks, in this stage, is followed by tolerably free vomiting, the revulsive effects of which aid materially in bringing on reäction. There are in these efforts frequently large quantities of bile ejected from the stomach.

Some practitioners have hence spoken highly of *emetics* in this stage of the disease. In mild cases they are doubtless sometimes useful. But in the severer forms of the disease, especially where there is much prostration, they are of questionable utility.

After the latent energies of the system have been temporarily aroused by the above means, we often find minute doses of calomel, combined with camphor and Dover's powder, are eminently useful, care must be taken, however, that too free evacuations of the bowels are not produced. Conjointly with these remedies, we must support the energies of the system by the use of quinine, brandy, carbonate of ammonia, serpentaria, etc., as the case requires. It is sometimes truly surprising that such enormously large doses of these medicines can be borne with impunity. The doses should be regulated by the effect rather than the quantity. Ordinary doses often make no impression whatever, and if the practitioner, from over caution, confines himself to moderate doses when the energies of the system are sinking, the patient will certainly fall a victim to his timidity.

In many cases *opium* was found to be an invaluable remedy. It is specially indicated where there is pain in the head, accompanied with delirium, spasm, great restlessness, neuralgic pains, palpitation, great irregularity of the pulses, subsultus, etc. The great cerebral disturbance might seem to contra-indicate the use of opiates; experience, however, has shown that it may not only be given with safety, but that in many cases it is essential to the cure. Like tonics and stimulants in this disease, it often has to be given in large doses, and continued for a considerable length of time, and when it becomes no longer necessary, it should be gradually withdrawn.

The bowels should be moved by the mildest laxatives and laxative enemata; active cathartics are totally inadmissible. Cases that previously were doing well, have sunk rapidly, and died in a few hours after the operation of a moderate cathartic. It will not do, however, to be indifferent to the condition of the bowels. One case was noticed that came near falling a victim to an overloaded state of the alimentary canal. No evacuations had taken place in several days; the extremities were cold, pulse 40 and extremely feeble, great prostration, countenance sunken, abdomen tumid but not tender; a tolerably free evacuation of the bowels brought great relief; the same unpleasant symptoms occurred in this patient every time the bowels were allowed to become obstructed.

If any organic disturbance occurs, attended with local inflammatory symptoms, it must be met by the treatment appropriate to these affections. It is necessary to bear in mind, however, that the condition of the system is decidedly that of adynamic, and if any antiphlogistic remedies become necessary, they must be of the mildest character. Among these secondary affections, perhaps pneumonia and hepatitis occur most frequently. In these, and various other affections, dry cupping is often of service. Blisters are among our most useful remedies; a large amount of surface should be covered, and kept open as long as the inflammatory symptoms remain.

During the course of the convalescence the utmost care should be exercised to prevent relapses. Every symptom, however insignificant, should be closely watched; any unnecessary exposure of the person should be avoided, especially in cold, damp weather. Cold night-sweats are common during convalescence, thus rendering patients peculiarly liable to take cold from slight causes. These sweats should be controlled by the appropriate remedies. A uniform temperature of the sick chamber, through the night as well as day, is specially important. The diet should be light, but sufficiently nutritious. Too much attention cannot well be paid to these regulations, and they should be persisted in until the health is completely re-established.

A case of a young man occurred, who had so far recovered that he was considered well; he continued so for two weeks. In a cool, damp day he rode some miles from home, went without his dinner, returned and ate a hearty meal, was taken with a violent relapse in the evening, and died in forty-eight hours. It is probable in this case, that the exposure in going from home and returning, had quite as much to do with bringing on the relapse as the error in diet.

I had designed to subjoin the outlines of a few cases illustrating the phenomena and treatment of this disease; but I have already exceeded the bounds that I had prescribed, and shall therefore omit them.

Art. IV.—*Extracts from the Report of the Proceedings of the New-York Pathological Society.* (Selected and prepared by Committee of Publication.)

Report of a Case of Cancer of the Brain. By J. T. Metcalfe, M. D.

Michael Larkin, æt. 28, a tailor, native of Ireland, stout, short and well made, was brought to Bellevue Hospital in August, 1848, having been found in bed, in a fit, by his acquaintances. At the time of admission, he was comatose. In the course of a day or two, by cupping to the nucha, blistering, and the application of counter-irritation to the extremities, he recovered so as to be able to walk about and answer questions. Subsequently to this time, he appeared to suffer continually from headache, was slightly amaurotic, and complained of feeling somewhat weaker on the left half than on the right half of the body. About two months after his admission, he had a seton introduced in the back of the neck, from which some alleviation of the headache was thought to take place. He was treated with tincture of aconite for some time, but no benefit was derived from its use. At one time small doses of sulphate of quinine were given. These appeared to produce violent aggravation of the headache, and were discontinued.

When I saw him, about the 26th of December last, he complained of the headache more than of any other symptom. Motion seemed to aggravate this very much, especially when he stooped down or bent forward, in examination of the posterior part of his chest. His appetite was good, pulse presented nothing remarkable, bowels regular, and nutrition seemed to be well performed. His intellect seemed somewhat obtuse; there was slight paralysis of the left eyelid, difficulty of vision, and weakness of the left arm and leg. He was able to walk about very well, however. Regarding the case as softening of the brain, or one of intra-cranial tumor, and choosing the former for a diagnosis, on account of the comparative rarity of the latter, little treatment other than the expectant was ordered. He had been repeatedly subject to epileptiform attacks during his stay in the hospital. These were different from ordinary epilepsy, in being of longer duration, lasting sometimes for half an hour or more, and from there being no foaming at the mouth, and no considerable impediment to respiration. Intense pain seemed to be expressed by his features during a paroxysm.

In one of these he died, on the 7th of January.

Autopsy 20 hours after death.—Body well nourished, cadaveric rigidity, slight hypostatic congestion. Head.—The skull was extremely thin, not exceeding 1-8 of an inch at any part sawed through. There was a whitish matter deposited between the arachnoid and dura-mater, sometimes in arborescent patches; at others, in lines or dots, and which resembled fibrine. The brain was palish, and presented, on inspection, nothing peculiar. The touch enabled us to recognise a hard tumor, apparently as large as an egg, situated in the anterior portion of the left lobe, and extending into the right hemisphere at the anterior extremity of the corpus-callosum. By dissection, the tumor was found to have originated in the left anterior half of the corpus-callosum. It had extended downward, so as to cause considerable pressure on the corpus-striatum of the left side. Latterly, it had encroached on the right hemisphere to the extent of nearly an inch. Softening had taken place near the centre of the tumor, over a space as large as an almond. Between the encephaloid mass and the convolutions, the brain was white, and offered a resistance to the scalpel such as would be found in incising healthy uterine tissue. The line of demarcation between the brain and tumor was ill defined.

Thorax.—No tubercles ; lung universally adherent to the thoracic walls by old pleuritic membranes.

Abdomen.—Viscera healthy.—*Jan.* 10, 1849.

Report of a Case of Rupture of the Heart. By G. A. Sabine, M. D.

On the 21st December, 1848, I was requested to make the post-mortem examination on a person who died suddenly a few hours previously. From the medical attendant I obtained the following short history of the case:

The patient was a female, aged 75 years; her general health had been remarkably good, with the exception of occasional palpitation of the heart. On the 19th she walked about two miles, and on the 20th a distance of one mile, without suffering any inconvenience. On the same evening she retired to her bed in perfect health. About one o'clock the family were attracted to her room by moans. They found her complaining of a sense of suffocation and severe pain over the region of the heart, extending up to the left shoulder. On the arrival of her physician, he found her nearly pulseless, and the surface cold. Suitable remedies were directed, so that by eleven o'clock the following morning the skin had become warm, and the pulse eighty, and moderately strong; the patient herself feeling quite comfortable. At half past one o'clock she got up and dressed herself, which she had scarcely completed, when she fell down and expired immediately, without a struggle.

The post-mortem was made about eight hours after her decease. Chest.—The lungs somewhat emphysematous, with evidence in various parts of early tuberculous disease. There were obsolete tubercles in the summits of both lungs. Heart.—On opening the pericardium, it was filled with a large coagulum, which, on careful examination, was found to have escaped from a rupture of the left ventricle, about half an inch in length.

The heart had undergone slight fatty degeneration. In other respects it was normal. Liver was healthy—gall-stones in the gall-bladder. Spleen, atrophied; external surface covered by a thick dense cartilage. Kidneys.—The left one encysted; in other respects healthy.

Remarks.—In the above case rupture, no doubt, took place about one o'clock, previous to her suffering from faintness, and a sense of suffocation; and while in this condition, a coagulum formed, blocking up the rupture; but, unfortunately, the coagulum was forced away by the exertion made in dressing herself on the following day, immediately proving fatal. Had the nature of the accident been suspected, and the patient kept perfectly quiet for some days, is it not possible that union might have occurred, and the patient's life been prolonged?—*Jan.* 10, 1849.

CASE 2d.—*Aneurism of the Abdominal Aorta Similating Severe Gastric Derangement.*

New-York, December 13, 1848.

DR. SABINE:

Dear Sir:—I have much pleasure in complying with your request, to be supplied with a brief history of the case of aneurism which came under my observation a few weeks since. A. B., æt. 32, of slender frame but active habits, consulted me for the first time in December, 1847. He stated that, about a year and a half previous to that time, while making an excursion on horseback through one of the southern states, he had been suddenly stricken with paralysis, his left side being deprived of motive power, both upper and lower extremities being equally affected. He remained under medical treatment for a period of two months, when he was sufficiently restored to return to his home in this city. He never at any subsequent time completely recovered the use of the left lower extremity, but in every other respect, until the month of December, 1848, his health had been tolerably good.

He had been accustomed to live well, and to the habitual but moderate use of intoxicating drinks. On making the necessary examination, I found him to have suffered from a second paralytic shock, the same side being again involved. Under appropriate treatment he speedily recovered, and once more engaged in his usual business pursuits. I did not have an opportunity of seeing him until the month of October last, when he again consulted me, complaining of loss of appetite, irregularity of the bowels, with a sensation of fulness in the epigastrium. On making pressure over the epigastrium, I discovered a large strongly-pulsating tumor, situated directly in the mesial line, extending from a short distance above the umbilicus, nearly to the ensiform cartilage, apparently of the size of the fœtal head at full term, and which, singularly enough, had not as yet specially engaged his attention. In reply to my questions, he stated that he had slightly observed the pulsation in the epigastrium about two months before, some time in the month of August; that, supposing it to be the action of the heart, he had not considered it worth while to consult me on the subject; that he had considered the enormously increased impulse a happy symptom, as indicating an increased energy of his constitution; that he could assign no cause whatever for the origin of what was now cautiously explained to him to be a most formidable disease, nor had he at any time experienced severe pain in the region of the tumor; the only complaint made, being of a distressing sensation of distention, and loss of appetite, accompanied with a constipated state of the bowels. His pulse was 120, frequent, and easily compressible, tongue preternaturally red, and having a glazed appearance, strength much diminished, and there had been considerable loss of flesh. At my request, a consultation was held, and the patient was fully apprized of the character of his malady. During the next three days a slight progressive enlargement took place in the aneurism. On the evening of the fourth day from the date of my first visit, I was hastily summoned to my patient, and found him faint and collapsed, the sac having evidently given way. Three hours after, he died without a struggle, remaining perfectly collected until the last moment. He had dined as usual, and was conversing with some friends at the moment the rupture took place. I have deemed it unnecessary to particularize the numerous symptoms of abdominal derangement produced by the pressure of this enormous tumor, or the treatment adopted in this most hopeless case.

By the request of the writer of the above, Dr. Young, I made the post-mortem examination. On opening the abdomen, the great omentum was found injected with an immense quantity of coagulated blood. The areolar tissue, posterior to the peritoneum, was also found filled with coagulum. This was discovered to have escaped from a large false aneurism, situated on the abdominal aorta, below the cœliac axis. All the other viscera of the body were carefully examined, and found to be perfectly healthy. The spinal cord was particularly and carefully examined, and found to be normal.—*Jan.* 10, 1849.

Report of Case of Wound of the Heart—the Patient living ten days.

By W. S. Bowen, M. D.

Dr. Bowen presented the specimen, and read the notes of the following very interesting case:

D. R., aged 21, admitted December 13th, 1848, with a stab in the left mammary region, near the sternal end of the fourth rib, about half an inch removed from the sternum; received two days before admission.

Dec. 17. Patient complains of an acute pain near the situation of the wound; has some febrile excitement; respiration slightly accelerated. The friction sounds of pleurisy and the evidences of moderate effusion are present. Venesection. Tart. antim.

Dec. 19. Pain greatly mitigated; febrile excitement abated.

Dec. 20. Evidences of effusion still present; some roughness of the first sound of the heart.

Dec. 22. Fell on the floor of the ward, while crossing it, in a state of syncope; complains of intense pain and a sense of constriction across the chest; pulse feeble, frequent and intermitting, the intermissions occur after every third pulsation; extremities cold; skin blanched; cold, clammy perspiration over face and body; extreme thirst.

He became comatose, with dilated, insensible pupils and stertorous breathing, and died December 23.

Examined nine hours after death. On removing the cartilages and ribs, the left pleural cavity was discovered to be filled with blood; slight inflammatory redness of the costal pleura, and the lung was compressed to one-third its natural size. The pericardium was also filled, and the heart pushed over to the right side. Removing the heart, with its appendages, the pericardium was found perforated within the mediastinal space two inches below its reflection from the vessels to the heart. Around the orifice, for several inches, were the evidences of inflammation, both on the internal and external surfaces, to wit, capillary injection and shreds of coagulable lymph; this was more particularly the case upon its internal surface. The heart itself was found perforated half an inch to the right of the septum; the perforation entering the right ventricle about a line below the anterior semilunar valve of the pulmonary artery, passing entirely through this ventricle and entering the septum ventricularum just at the base of the posterior valve, and coming out into the left ventricle at the orifice of the semilunar aortic valves, one of which was grazed. These orifices were lined with coagulable lymph, and without displacing it admitted the introduction of a good sized probe.—*Jan. 24th,* 1849.

Aneurism of the Descending Aorta—Rupture into the Pericardium—Obliteration of the right transverse Vein. By WILLIAM H. VAN BUREN, M. D.

MR. V. Z., 48 years of age, bookbinder by trade, robust and muscular, and of excellent general health, received, some 20 years ago, a number of severe bruises about the chest, being trampled upon in a dense crowd, from which he barely escaped with his life. Since that time his good health has been uninterrupted, with the exception of pains in the chest, especially on drawing a deep inspiration, of which he has complained habitually. Within the last year the troubles about the chest have increased somewhat; he has suffered from dyspnœa almost constantly, particularly increased by excitement; has suffered much from a dry, harassing, severe cough—tracheal in its character—which has been uniformly more troublesome at night; prefers to sleep in the upright position, principally on the right side. He also complained of considerable rheumatic (?) pain in the shoulders, and back of the neck and head, of which the skin is at all times neuralgically tender. He has been very much troubled of late with coldness of the hands and feet, which have manifestly diminished in size; the left hand particularly has been numb. He had never left off his daily occupation. On the 11th of January, during a paroxysm of coughing, he fell from his chair and died instantly.

On post-mortem examination, an aneurism was found of the ascending aorta, half as large as a billiard ball; immediately beyond this, at the root of the innominata, was a second much larger aneurismal dilatation the size of the fist. On opening the pericardium, about four ounces of serum escaped, and the heart was found enveloped in a layer of coagulated blood, amounting to about seven ounces: a rupture of the aneurismal sac into the pericardium existed. The branches of the arch of the aorta were pervious and healthy; the walls of the descending aorta were much diseased. Heart to all appearance healthy. The right transverse vein was found to be obliterated, and involved in the walls of the aneurism. A portion of the right lung was consolidated by the pressure of the aneurism; the lungs were otherwise healthy. There had been, at no time, any œdema of the right arm.

In connection with one of the peculiarities of this case, viz., the obliteration of the right transverse vein, Dr. Van Buren alluded to an instance in which he had encountered a similar lesion of this vein, evidently the result of a limited phlebitis. It was in the case of a middle-aged female, who died in Bellvue Hospital with disease of the lungs. There was considerable œdema, confined entirely to the right arm; and also —a somewhat rare occurrence—a very well marked varicose dilatation of the left subclavian vein. The recognition of these symptoms before death, led to a suspicion of the lesion, which was actually found to exist. The specimen had been exhibited to the society.—*Jan. 24th*, 1849.

CASE 2d.—*Case of Syphilitic Disease of Larynx—Tracheotomy.*

DR. VAN BUREN also exhibited the larynx, trachea, and bronchi of a man 33 years of age, upon whom he had performed the operation of tracheotomy, about two months and a half before his death. He was in imminent danger of death from suffocation, from organic disease of the laryngeal cartilages, apparently of syphilitic origin, and the temporary relief from the operation was entire. On exploring the larynx some days after the operation, through the artificial opening, a portion of necrosed bone was felt and detached from the posterior surface of the semi-ossified cricoid cartilage, as large as a sixpence. Six weeks after the operation the opening had contracted to such an extent that the tube could not be reïntroduced; symptoms of suffocation rapidly came on, and it was necessary to enlarge the opening before respiration could be restored. A harassing cough, accompanied by expectoration of tough viscid and occasionally bloody matter, continued, and finally caused death by exhaustion. The specimen exhibits a peculiarly interesting condition of the parts. Above the artificial opening, the larynx, although showing evidence of the previous existence of extensive disease, is entirely cicatrized, and apparently healthy—evidently the result of the rest secured to the organ by the artificial opening. Below, the trachea, down to its bifurcation, is filled, particularly on its posterior surfaces, with numerous deep, ragged, unhealthy looking circular ulcerations, with extensive loss of substance, its cartilaginous rings being at numerous points denuded and partially destroyed. Dr. Van Buren remarked, that in his opinion the ulcerations were syphilitic in their character, and that if he had retained charge of the patient after the operation, he should have anticipated decided benefit from the influence of mercury.

Art. V.—*Case of Hydrothorax and Hydrops Pericardii.* By James A. Mott, M. D., of Waddington, N. Y. [Communicated to the Editor of the New-York Journal of Medicine.]

Mr. Editor,—As your useful and interesting Journal has become one of our most popular vehicles for disseminating important cases of disease, I shall offer no apology for soliciting a place in your pages for the following remarkable case of hydrothorax and hydrops pericardii.

The wife of Hon. G. R., of this village, gave birth to a well-formed and healthy child, on the evening of the 10th of March, 1849. There was nothing preternatural in her labor, which was attended by an experienced and able physician, and at the moment of the birth of the child, there were no symptoms which indicated a fatal result. About ten or fifteen minutes after the birth of the child, and before the secundines were removed, she complained of great oppression about the chest, and difficulty of breathing, and requested the attending physician to administer something to relieve her. A few drops of aqua ammonia were given in a little cold water, but without the least benefit, and she expired in about thirty minutes after the birth of the child.

A post-mortem inspection took place about thirty hours after death, and presented the following appearances:—The left lobe of the lungs, throughout its entire surface, was mottled with dark spots of stagnant blood, and on cutting into its substance, we every where found its cells filled with frothy mucus mixed with bloody serum, which probably resulted from sanguineous transudation after death; but what more particularly demanded our attention, was the large quantity of water in the cavity of the thorax and pericardium. At the least calculation there were three pints of water in the cavity of the thorax, and six or seven ounces in the pericardium. The fluid in the cavity of the thorax had a decidedly sanguineous tinge.

The accumulation of this fluid must have been in progress some time previous to her death, and the only wonder is, that she survived so long, with such a load of disease attached to the most important and vital organs of the body. It did, indeed, occur to me some fifteen months ago, when she consulted me for a severe palpitation of the heart, that she might labor under hydrops pericardii, and the same opinion was entertained by Dr. Stowers, her attending physician, but as her temperament was nervous, both of us were inclined to impute her symptoms to a nervous affection, and prescribed accordingly. It should be remarked, that Mrs. R. had not enjoyed a sound state of health for a number of years; she suffered much from an affection of the throat and enlargement of the uvula, for the cure of which she consulted a number of highly respectable physicians in the city of New-York and other places, but with only partial relief. With the concurrence of Dr. Valentine Mott, she had had removed a portion of the enlarged uvula; but notwithstanding the various means adopted to relieve her, her throat always remained in an irritable condition; often giving her great trouble, especially during the sudden changes incident to the fall and winter months of this northern region. During her late pregnancy she enjoyed a better state of health than usual, with the exception of a severe cold, which she took about six weeks previous to her confinement. These symptoms, however, soon yielded to simple treatment, and at the time of her death there were no positive indications of the disease which so suddenly and unexpectedly destroyed her.

Art. VI.—*On the Morbid Condition of the Generative Organs.* (Being a paper read before the Chenango County Medical Society, June 12, 1849.) By William D. Purple, M. D., of Greene, N. Y.

The subject to which your attention is called on this occasion, *is the physical and mental phenomena which depend on certain morbid conditions of the generative organs.* I am aware that this subject has been recently discussed in some of our periodicals, as well as in certain productions designed for the popular eye, and in this attempt to make "darkness visible," I disclaim all pretensions to originality, and all thought of a practical hypothesis; but shall merely endeavor to hold it up as a nebulæ before this society, with the hope that more practical minds will reduce it to its constituent elements, define their laws, and point the way to remedy their evils.

Man emphatically partakes of all the characteristics of animal life. His chief end and aim, so far as his physical being is concerned, are like the worm of the dust, to propagate his kind. To this end all his powers, both physical and mental, are made tributary. All his gregarious habits—all his love of kindred, and all his social affections, find their centre in this wise provision of nature to procreate his species. The unerring laws of instinct, planted by Infinite Wisdom in the lower animals, are so guarded as to protect them from excessive indulgence of this appetite. But human reason is not so fortunate. This propensity in man often becomes a most debasing passion, and hence liable to be abused. In proportion to its elevated position in the animal economy in a physiological point of view, so is its physical influence over the life and health of the body when the laws of nature are violated.

The specific diseases of these organs consequent on promiscuous indulgence, will almost warrant the belief in the direct interposition of Providence for the punishment of the violators of the seventh command.

Nor are the consequences of excessive and unnatural excitement of these organs less apparent. They are exhibited in the premature decay and death of those whose sexual organs are stimulated by promiscuous indulgence, or the equally debilitating effects of masturbation.

Reproduction is one of the highest attributes of physical being. It involves more extensively the vital powers than any other functional act. The fabled notions of the ancients, that every part furnished a part, is literally true, at least so far as extensive sympathy with the sexual organs is concerned. The powers of both body and mind are more entirely concentrated here than on any other occasion. The slightest excess produces the most excessive prostration of the nervous power, and the mental faculties dependent on it; hence the recuperative energies of the system, on which health so much depends, are readily dissipated by excessive or unnatural indulgence of the sexual appetite.

An anatomical view of the sexual apparatus presents a very large extent of membranous surface. This membrane is liberally supplied with blood-vessels and nerves. It is subject for a long period of life, to the most violent orgasms, and is exposed to the influence and effects of private lascivous reflections. It is emphatically one of the great nervous centres of the system, and possesses in an eminent degree all the nervo-membranous characteristics so ably described and illustrated by that great physiologist, Bichat.

This membrane is subject to abrasion, and local diseases of various kinds. They are the most acute to which the body is liable. They lay the system under more immediate and powerful contribution for its vitality than any other diseases. The slight excitement of a mild case of gonorrhœa, even after the inflammatory stage has subsided, wakes up a constant irritation both of body and mind; evincing an extensive influence over the nervous system, that conceals from the view its apparently trifling cause. It cannot with truth be said, that this is the result of remorse and fear of exposure, for it is much more intense than even the worse form of syphilis when the lesion involves other tissues.

These influences of actual disease of this membrane demonstrate that its *function* has a wide-spread sympathy with every part of the animal economy, and involves to a very great extent the mental characteristics. But local disease of these organs may exist without actual abrasion. The function may become vitiated by abuse, and produce a chronic disease capable of undermining the whole nervous system, without awakening attention to its location. This is also apparent in hysteria, in functional disease of the stomach, and many other membranous surfaces.

If other evidence of the all-pervading influence of this function is wanted, it may be found in the change, both physical and mental, which the age of puberty brings with it. The encephalic developments, as well as the change in the voice, are apparent to all, and the entire exemption from these changes when the function of this system has been suspended by a removal of the secretion on which it depends.

Excessive indulgence in the sexual appetite is emphatically a solitary vice. It seeks concealment from all not essential to its gratification. It is generally commenced at an early period of puberty, when, in solitude, excessive orgasms leave the generative system in a state of chronic weakness and nervous debility. This wakes up a morbid appetite for its repetition, and when long-continued it leaves the system in that state that renders subsequent indulgence, however innocent and moderate, any thing but a healthy process.

This state of the generative system is hidden from the world, and is seldom admitted to the physician. As they are unable to institute comparison with others, it is frequently unknown to the deluded subjects themselves. It is imputing a wrong, and trespassing on reserved rights, for us to allude to it even in our own sex, and it is rudely trampling on the very drapery of delicacy to charge it upon the gentler sex. Hence it undermines the constitution—saps the very powers of life—confines the subject in bed for years—or, by its metastasis to some more vital organ, closes the scene by death, without being clearly recognised by us.

This state of the generative organs may exist with very little local irritation. All its constitutional symptoms may be present, without a manifestation of any other local excitement than that of a morbid appetite for sexual indulgence. It probably in every case depends on the violation of nature's laws, either by self-pollution or by early excesses in sexual indulgence. It is an admitted fact, that nearly all the chronic diseases to which the system is liable, are the sequence of some violated laws that Infinite Wisdom has imposed upon the animal economy. And the sexual organs, goaded on by a morbid passion, stimulated by an excited imagination, and hidden from the eye of the world, comes in for their full share of the consequences of violated laws.

This disease usually presents itself in those who have a large share of the sanguine and nervous temperaments combined. It exists in comparatively rare cases, while others may be exposed to the like causes, with less irritability of these organs, with entire impunity. The tendencies to these symptoms may be, and I doubt not are in some instances hereditary. It is, if not of modern origin, more prevalent now than formerly; at least it is attracting more attention from the profession now than at any former period.

In a hospital devoted exclusively to this form of disease, a single individual could do much to elucidate its characteristics. But the limited observation of a country physician can do little more than to mention a few cases, and present them to his brethren in their associated capacity, that they may be subjected to the touchstone of comparison, where joint effort may arrive at pathological truth and practical deductions. To this end the following cases, from among those that have fallen under my observation, are presented for your consideration.

1st. The first case to which I would call your attention in support of these views, occurred some years since, in an unmarried female, aged eighteen. She was of a robust constitution, with a nervo-sanguine temperament, and had enjoyed uninterrupted health. The first symptoms that attracted attention, were a propensity to lonely wanderings, a heedless inattention to business, and a disregard to her personal appearance. These symptoms were succeeded by loss of appetite, an excessive emaciation, with high nervous excitement. She had irritability of the muscular fibre, with occasional paroxysms of chorea. These usually occurred on some sudden surprise. Her pulse was irritable, her skin dry, and she was harassed with an almost incessant cough. These symptoms were succeeded by sleeplessness, incoherent conversation, interspersed with occasional libidinous remarks—the medulla oblongata soon became involved; this was manifested by extreme tenderness of the spinal column. In this condition she was confined to her bed for some months, without any abatement of her unpleasant symptoms. Perfect delirium supervened, and she presented all the symptoms of a confirmed maniac. She was treated for this malady for about six weeks, when she gradually recovered, and was restored to perfect health.

It was impossible, at that time, to learn definitely the cause of these symptoms; yet, as she had before enjoyed uninterrupted health, I had strong suspicions, and charged her with the cause. This, at the time, was met by a positive denial. In a subsequent conversation, however, after she was a wife and a mother, she admitted to me that all those distressed symptoms, even to confirmed mania, were the result of violent orgasms of the sexual apparatus, to which it had been subjected from three to five times a day, for two or three years. So great was the excitability of the nervous system in this case, that for months she was in a feverish condition, and every indulgence reduced her strength to that degree that she was forced to keep her bed. When local excitement and morbid priapism would so far subside as to allow her to lose herself in sleep, nocturnal orgasms would awaken her to a sense of her wretchedness. This state continued until the nervous system became involved, and the citadel of reason was invaded. The irritating process was then suspended, and with the straight-jacket and cold water, we were able to affect a cure. On a return of consciousness, she reflected on my accusation, and inferred that her habits were publicly known. They were never resumed, and she was restored to perfect health.

2d. The second case to which I would call your attention, arose from extreme debility of the seminal vessels, brought on by early solitary excitement, and completed by sexual indulgence, at the early age of sixteen. His first indulgence was so violent and long continued that the organs never regained their normal vigor, and the chronic sequences were never overcome. These were: enlarged testicles, tenderness and rigidity of the spermatic vessels, an irritable state of the bladder and urethra, an exceedingly acute and almost painful sensation in sexual indulgence. He was troubled with priapism, with diurnal and nocturnal seminal discharges. He had blennorrhœal symptoms, which presented themselves unconsciously with the urine. On his marriage, no unpleasant symptoms were communicated. His social feelings and affections were the source of painful excitement, and seemed to vibrate with harshness on his irritable nervous system. His whole life was a scene of constant physical and mental excitement. He became melancholy, misanthropic, and irascible. His thoughts, his feelings, and views of every thing around him, were unlike others. He travelled much, and spent time and money to remove the disease from his body and relieve his mind from the constant excitement it produced; but in vain. They adhered to him like the fabled shirt of Nepus, and controlled his whole physical and mental being. He sighed for the Lethean waters of forgetfulness to protect him from their influence, but they came not to his relief. He was conscious of his own characteristics, and freely admitted to his medical advisers the cause that produced them. Time rolled on, the nervous system became more and more involved. His seminal losses increased with his years, and the whole economy, particularly the cerebro-spinal system, "gave signs of wo, that all was lost." The local symptoms were lost in the general excitement, the mental faculties gave way, and for much of the time, for two years, he was unfit to do business, and in a moral point of view, was unaccountable for many of his acts. A constant and gradual increase of the above described symptoms, which commenced with his boyhood, brought on a premature decay of his physical and mental powers, and without any other apparent cause, he sunk into a comatose state, from which he never revived, and death closed the scene in twenty-four hours.

3d. The third case to which I shall refer, is that of a young man of eighteen, who had symptoms of gonorrhœa. The acute stage yielded readily to treatment, and it was supposed that the chronic debility succeeding, would yield to time and the recuperative power of the system. In this he was disappointed. A mild gleet continued, not enough to prevent his being about his business, but enough to create physical irritation and mental anxiety. Weeks and months rolled away; he had very little local irritation, yet he became emaciated and nervous. A slight fever followed for a few days. These symptoms were followed by mental depression. He became thoughtful and taciturn. His countenance indicated much anxiety. A sluggish pulse and incoherent speech followed, when suddenly a comatose state of the brain supervened, which closed his earthly career in three days.

This case is somewhat in the dark. What were the essential characteristics of the original disease cannot be clearly ascertained. It is proper to remark, however, that two other young men were nearly simultaneously affected thereby, from the same source. One of whom died some months thereafter, in a similar state, which supervened on an attack of common fever. What the precise symptoms were, I am unable to learn, as the case occurred in a distant part of the state. But of one fact I am well assured, he had never entirely recovered from his gonorrhœal symptoms. The third individual yet suffers to some extent for the "sins of his youth," and although he has been married for some time, the disease has never been communicated.

4th. The fourth case to which I shall allude, is that of a married man, aged twenty-six, in whom there is no evidence of having suffered under gonorrhœal symptoms. He has been confined to his bed for the last two years, with the following symptoms. His pulse is feeble, and occasionally irregular, he has palpitation of the heart, with throbbing at the pit of the stomach, pain in the back, with irritation of the whole spinal column, a choking sensation at the throat, equivalent to that caused by hysteria, erratic pains, denoting high nervous excitement. He is very feeble, with much emaciation; he has cold clammy sweats, with extreme prostration of muscular power. He is intolerant of the sounds of the slightest tread, and does not speak above the lowest whisper. He does not turn himself in bed, and an extra pillow produces a sense of suffocation. All the animal functions are exceedingly weak, and the vital are but feebly performed. He is troubled with priapism, and has voluntary and involuntary seminal discharges. They were formerly very frequent, but now do not occur oftener than two or three times a week; when they do occur, however, they very much reduce him, and aggravate all the above spmptoms, and to these evacuations, which have continued through a series of years, we are compelled to refer all the above symptoms. The admitted cause is, long continued and excessive anti-nuptial self-pollution, which so far weakened the young and delicate organs that they never recovered their normal state. On his marriage, the excitability of the generative organs stimulated him to excessive indulgence in his sexual appetite, when the powers of the system gave way, and he was reduced to his present wretched and hopeless condition.

In the same house is another subject, in the person of his wife, who, though not so feeble, has been confined to her couch for a long time, laboring under a similar train of symptoms. She has superadded to these all the characteristics of our modern cases of prolapsus uteri. The cause, in her case is, without doubt, her nuptial participation in the excesses of her husband.

Various remedies have been resorted to in the above cases, under the influence of all the lights of allopathy, homœopathy, and hydropathy, but with little or no effect; the subjects seem inclined to move in the even tenor of their way, regardless of all remedial efforts.

5th. The next and last case to which I shall allude, is that of a young girl of sixteen, in whom early solitary excitement had reduced to the most abject condition. Her nervous system was entirely unstrung. This was manifested by all the neuralgic symptoms enumerated in the foregoing cases, with the addition of frequent epileptic paroxysms. The sympathetic action was early communicated to the urinary organs, and long-continue dand painful ischury was the consequence. The urethra became so rigid and irritable that the catheter could with difficulty be introduced. After some months, a fever followed, which ran its ordinary course in ten or twelve days. This left the stomach a prey to the sympathetic influence of the generative system; constant vomiting followed, and for more than a year she never received a particle of liquids or solids into the stomach without producing severe retching and emesis. In this wretched condition she became almost a shadow. She was very much emaciated, and could with difficulty walk the room. Hardly enough could be retained on the stomach to support vitality. She lost her vivacity, avoided all society, and seemed to abandon herself in despair to her fate. Every thing was done for her that could be suggested, but as remedial agents were directed to the stomach, they were unavailing. At length endurance seemed at an end, and death appeared inevitable. She then recalled her oft-repeated denials, and admitted her habits. She confessed that self-pollution was commenced at the earliest signs of puberty, that it soon became an uncontrollable passion, and for some three years she had subjected herself to violent sexual orgasms from three to six times in twenty-four hours. As soon as her secret was known, the spell was broken, and the charm dissipated. A firm resolution, aided by travelling, and spending all her time, both by day and night, with some one to restrain her, soon put an end to her emesis, and she was gradually restored to perfect health.

Did the time of the society permit, and your patience would endure it, I would mention a number of other cases, some of which are now under treatment by members of this society; but enough has been adduced to show the various causes and the different manifestations of these derangements, and serve as a basis for the following reflections.

From a review of the foregoing observations and cases, the following facts are clearly proven to my mind, and I doubt not they will meet with an affirmative response by every member present.

1st. That a gleet, following gonorrhœal symptoms, is not the mild and harmless thing it has generally been supposed to be; but is capable, under certain circumstances, in some constitutions, of making up an irritation, liable to be transferred to other portions of the membranous surface, and of producing all the symptoms incident to the disease of that wide-spread structure, including meningeal irritation, coma, and death.

2d. That violent and unnatural orgasms of the sexual apparatus in the early stage of puberty, before the organs are fully developed, and have attained their perfect vigor, will, in either sex, create an almost uncontrollable desire for its repetition, which, in the end, will leave the nervous system in a similar condition to that of the confirmed inebriate; and, if long continued, will produce every variety of neuralgic symptoms, including epilepsy, mania, and, perhaps, death.

3d. That, in consequence of long-continued excitement, there is a change of structure and functional action of the glandular portion of the testicles, the vassa deferentia and eferentia, the vesiculæ seminalis, the prostate gland and its numerous folicles, the urethra, and by sympathy, the bladder, the ureters and kidneys, that cause them to pour out seminal and blennorrhœal discharges: thereby debilitating the system, undermining the constitution, producing dyspeptic symptoms, and, if not timely arrested, terminating in coma and death.

If the foregoing points are not satisfactorily sustained by the cases presented above, I have no doubt that the experience of many members of this society will be able to supply many cases to demonstrate their truth. To this end, a rigid investigation is solicited, that their truth or falsity may be made apparent to our practical advantage.

How limited is our knowledge of the pathological character of these troubles? How little is the country physician prepared to form a rational theory of their influence in the animal economy? How little we know of their existence, and how frequently they elude our research? The veil of secrecy and shame-faced denial hides them from our view. They are produced by personal gratification and perverted action of the strongest passion of the animal system; a passion that over-rides all other physical powers, and is the basis of all earthly affections and sympathies of the heart! It partakes of all of the characteristics of forbidden fruit, and is heightened by the imaginings of a perverted imagination! It is the seat of the "*one idea*" that dethrones reason, and fills our lunatic asylums with their inmates. It is, also, the source from "whence the darker passions flow," as the prison and the gallows can assert! The grave of the suicide can bear witness to the same truth. The poet and the novelist have made this giant their theme, and portrayed his power for the weal or the wo of mankind; but the medical philosopher has neglected to cultivate his acquaintance. He has been suffered to secrete himself among the mental afflictions, and has seldom been dragged forth to answer for the deeds done in the body! It is time that these organs, so far as reproduction is concerned, should be thoroughly studied, and their pathological influences clearly developed; but the passions and appetites which lie behind them are almost entirely hid from our view. Their use or abuse have seldom been referred to as the origin of diseased action. The world sneers at and ridicules the suspicion that health is affected by their indulgence, and the physician is apt to join in the cry, and refuse to give the matter serious consideration. We hardly know

> "that lovers' hectic flush,
> "Will sap, at length, the very springs of life;"

and we have been slow to believe that disease of these organs may produce every variety of chronic disease, ultimately be transferred to the brain, and cause mania or death. But observation and reflection has convinced us that it will do all these things, nor is admitted analogy wanted to confirm this belief. We know that there is no organ of the body that is not capable, by perverted action, to work its own destruction. That the seeds of disease and death are lurking in every healthy organ, and only require a certain amount of excitability to arm them with suicidal power. We know that perverted taste and morbid appetite produces a chronic disease of the stomach, and through the nervous system invades the citadel of mind, and by the most horrid disease consigns the bacchanalian to his grave. This is emphatically true in relation to the organs we are now considering. We know that in certain constitutions the process of reproduction in the female will produce an anæmic state that ultimately produces death. We see the far-reaching influence of hysteria, and its herculean effects upon the whole physical and mental characteristics, especially after long continuance. Analogous to this is the effects of puerperal mania, which all admit to originate in undue excitement of a portion of these organs. These diseases both produce a sympathetic irritation of the brain, and their effects are liable to exist through life, even though the causes that produced them have entirely ceased. We see habitual costiveness producing severe pain in the head; and irritation of the large intestines causing effusions upon the brain. And we may expect that long continued disease of the reproductive organs will produce similar effects.

We often see death supervene on a train of nervous symptoms, the result of long-continued irritation of some excitable organ. We also see subjects where there is, to all appearance, *no* local disease, whose symptoms are entirely prostrated for the want of nervous energy. In these cases we are apt to say, "they are nervous;" and there is a degree of uncharitableness attached to the expression that conveys the idea, that "there is little or nothing the matter," until death suddenly starts us from our fancied security, and we find that neuralgia, without any apparent cause, has worn out the powers of the system, and unexpectedly broken the brittle thread of life. These cases require more serious consideration at our hands; and there are reasons to fear that in many instances their origin will be found in the great nervous centre we have been considering.

The truth is, we are very much in the dark in relation to many diseases of this system. Their origin lies so near the *source of life*, that it is difficult for mere mortals to penetrate the veil behind which they are shrouded. How often we see in the aged gentleman, a train of fatal symptoms present themselves, from some morbid condition of the prostate gland, and other generative and urinary organs in its immediate vicinity? Should they be traced to their cause, it would doubtless be found in the long-continued use or abuse of the generative organs. Look, also, at the bed-ridden subject, who, for years, has suffered under the various forms of prolapsus uteri. How little we know of her pathological condition? We know there is local weakness; we know there is relative displacement; we know there is excessive nervous sympathy and general debility; we know she cannot sustain an upright position. But what else do we know? Has post-mortem examinations been had in the country to elucidate this dark point in pathology? Has it or can it demonstrate the fact whether it depends on the muscular, the fascial, or the membranous structure? Has it clearly shown that its seat is in the vascular, cellular, or nervous tissues? These things have not been done. All we know is, that they involve the "*generative organs,*" and that every excitement of their function increases local debility and general nervous exhaustion.

The ovaria are important organs of the female system. Their physical characteristics have an extensive influence throughout the body. They are subject to many tangible diseases. They originate the most extensive tumors, and are the seat of hydropsic disorders. These may originate in some obscure functional derangement that has heretofore eluded our research. There are well-authenticated cases on record of their displacement backward and downward into the recto-vaginal sac; and there is hardly a doubt that they may be involved in the gone-sensation that universally exists in these protracted cases. The sensation is so like that produced by pressure or disease of the testicles in the male, it affords additional reasons for the suspicion.

Dyspeptic symptoms and spinal irritation, are very frequent among our students, and others who lead a sedentary life, and in almost every instance they are greatly aggravated, if not produced by the habits we have been considering. They, as well as the other symptoms to which we have referred in these remarks, never occur before puberty, nor do they present themselves in the later stages of life. They exist only when the reproductive function is in full vigor, and if the powers of the system are not overcome as a consequence of the gross violation of nature's laws, they are apt to subside when the force and vigor of these organs are on the decline.

Prevention is the principal indication with the physician in these cases. The patient should be thoroughly instructed in the penalty which is decreed against the violators of nature's laws. He should be taught that every passion, and every appetite with which he is endowed, is given for a *specific* end; and when nature's designs are transcended, and a perfect equilibrium is destroyed, it produces a physical disease, in the same manner that a single mental faculty, when allowed to supersede others, will work a destruction of the mind, and produce insanity.

In many instances, a consciousness that degraded habits are known, even to their physician, will work a reformation; hence an intimation of the cause will not unfrequently arrest the habit, and if not too long continued, the consequences resulting from it. Travelling—cold bathing—engagement in some active pursuit that will absorb the faculties of both body and mind—entire abstinence in thought, word, and deed, from the sin that so easily besets them, are all strongly indicated, to remove the habit. When this is done, the recuperative power of the system, aided by invigorating treatment, will do much, at least, towards removing the effects it may leave behind it.

The practical questions deducible from the facts and reasonings contained in this paper, are left for the consideration of this society, with an earnest hope that they may be the means of exciting curiosity, stimulating inquiry, and in the end terminate in practical results.

NOTE.—Since writing the above a medical friend has put into my hands the valuable work of Prof. Lallamand, of Montpelier. In this book are detailed numerous cases of the character of case 2d, above given; and to this treatise the reader is referred for a more extended exposition of that class of diseases embraced in the foregoing paper.

PART SECOND.

CRITICAL ANALYSIS.

Art. VII.—*A Practical Treatise on the Domestic Management and most important Diseases of Advanced Life.* With an Appendix, containing a series of cases illustrative of a new and successful mode of treating Lumbago, and other forms of Chronic Rheumatism, Sciatica, and other Neuralgic Affections, and certain forms of Paralysis. By George E. Day, M. D., Fellow of the Royal College of Physicians, and Physician to the Western General Dispensary. Philadelphia: Lea & Blanchard. 1849. 8vo. pp. 226.

In our last number we gave our readers a short notice of this interesting work. In the present we have thought best to lay before them a more particular account of its contents. There are in this volume some facts which, to say the least, to the junior members of the profession, must prove of value. Some facts which, if recognised and kept in view in practice, must prove useful and lead to successful results. That the therapeutics of old age, like those of infancy, must be greatly influenced by modifications which the period of life induces, is clearly to be seen; that diseased action must be equally so, is equally clear. Organic nature presents in all its departments, a period of growth, maturity, and decline. The process of disease must meet with modifications in each of these periods. And so great sometimes are these modifications that we are almost led to believe that complete and decided changes have taken place in "the constitution." Old age presents modifications in the anatomical figure of the human body. Certain organs present fixed peculiarities, which must, in a great degree, modify the due performance of their functions, and when diseased actions occur, must change, to a greater or less extent, their course and results. These peculiarities of anatomical figure may be easily recognised, particularly in the respiratory organs; the organs of digestion and circulation, and the nervous system. These peculiarities of diseased action may be seen in the absence of reäction in many of the inflammatory diseases of old age, leading us to depend less at this period of life than any other, upon the *vis medicatrix naturæ.*

Dr. Day states, that the period of decline is most commonly observed to begin at about the 40th year in women, and the 48th or 50th in men, and that it is of the period of life succeeding this change, of the hygienic rules necessary to be observed during it, and of the diseases incidental to it, that he has to treat in the volume. We shall not stop to dispute with our author on the propriety of this division, but simply content ourself by the expression of the opinion that the division might have been extended at least to two if not three years later. So it seems at least to us, and this opinion we perceive is borne out by vital statistics. Of the anatomical peculiarities of old age, of which Dr. D. gives a good summary, we shall not enter into a special consideration, believing that all our readers, who have become careful observers, have long since noted them. The following general notice, however, we have thought best to present :—

The osseous structure of the chest is often materially changed in figure. Its upper portion is often flattened at the sides, thus diminishing its transverse diameter. The vertical diameter is shortened, caused principally by the absorption of the intervertebral cartilages, and as the anterior portion is most rapidly absorbed, we have forward curvature of the spinal column. In consequence of the preceding changes, the diaphragm is naturally altered in form, thrown into folds, the impressions of which are often well-marked on the upper surface of the liver. The lungs are considerably changed in their aspect. Hourmann and Dechambre have divided these changes into three types, the conclusions growing from which verify the law announced by Magendie, that the density of the lungs diminishes, as also does the quantity of the blood they admit, with the progress of age. Gradually the thorax accommodates itself to this change; it becomes atrophied as the lungs atrophy ; it contracts as they contract ; and the effused serum which they contain may be owing, at least in part, to the chest's inability to contract beyond a certain point ; the lungs continuing to diminish, the serum fills the vacant space. The modifications of function consequent upon these changes are important. The movements of the chest in the transverse direction are much diminished ; the diaphragm becomes the chief agent in inspiration ; ordinary expiration is sudden and rapid ; forced expiration, as in coughing and expectorating, is difficult. The changes from venous to arterial blood cannot be efficiently brought about.

The carbon which ought to be eliminated by the lungs as carbonic acid, is only imperfectly removed, and the corresponding volume of oxygen, which ought to be absorbed in its place, and be conveyed in the blood to every cell within the organism, carrying with it health and vigor, can no longer gain admittance into the system. By an altered state of the vascular tissue and the bronchial mucous membrane, an obstacle to the free escape of the aqueous vapor charged with organic matter is prevented, in consequence of which the lungs have a tendency to become œdematous, and Dr. Day thinks that the depositions so frequently found in them are probably dependent upon the same cause.

The modifications in the nervous system and its functions are not less in importance. The evidence which we possess that the size, weight, and specific gravity of the brain diminishes with advancing years, is clear. The same must be the case with the other portions of the nervous system. Owing to the absorption of the diploe, the skull is diminished in thickness. The membranes of the brain become thickened and more opaque, particularly the arachnoid and pia-mater. The quantity of blood is much diminished. The coats of the arteries of the brain lose their retractability, become frequently diseased. There is a considerable quantity of fluid in the sub-arachnoid cavity, indicating an increased space between the surface of the brain and the interior of the skull. In relation to this latter circumstance, according to Dr. Todd,* "there is strong evidence, tending to show that the occurrence of an increased quantity of fluid, either around the nervous centre or within the ventricles, is a *result*, and that probably, of *a conservative* kind, consequent on a change, which depresses the general nutrition of those organs." In connexion with the changes in the nervous system, our author notices those of the senses; these are so obvious to even the superficial observer, that we pass them by. The functional changes of the nervous system are clearly seen in the enfeebled energy of volition, and its influence over the muscular actions. The diminution of irritability and sympathy in all the textures of the body, and the absence of nearly all power of reäction after depression of any kind. Dr. Day believes that particular attention should be given to the bearings which *the isolation of the different organs*, consequent upon the period of decline, have upon the treatment of diseases in this class of patients. "The bond of nervous sympathy, (says he,) uniting the different organs into one living whole, seems to be weakened, and in some cases almost snapped asunder." As an illustration of the truth of this statement, a lung may be entirely impermeable, or may be perfectly disorganized, yet the heart may afford no indication, either by its force or frequency, that one of the most essential of its vital functions is fast ceasing.

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* Cyclopædia of Anatomy and Physiology, vol. 3, p. 642.

In the digestive organs, we find the muscular coat of the intestines more or less atrophied, and sometimes not a trace of it can be found; the villi and mucous follicles generally shrunken, and very little mucus is secreted. The capacity of the stomach is much diminished; so likewise is the caliber of the intestines; this change is dependent upon thickening of the mucous membrane. Upon this and the corresponding changes relating to the imperfect mastication of food, such as the absence of the teeth, and modified admixture of the saliva, must depend the peculiar forms of gastric derangements which exist in old people, and the diminished nutrition; the latter an almost uniform attendant of old age. The imperfectly digested food must yield an imperfect chyle; the organs for its elaboration are atrophied, the blood ceases to be produced in a perfect condition, and is, as it were, slowly poisoned at its birth.

Important changes take place in the organs of circulation. The lining membranes of the heart and great vessels, frequently present spots of ætheromatous deposits, and the free margin of the valve are thickened and much hardened. The arteries are deprived of their proper elasticity, owing to their containing deposits of calcareous salts and fatty matter, which condition predisposes to rupture of their coats and aneurism. The walls of the capillaries are invariably thickened, rendering their diameter smaller, and of a consequence, the circulation less free; this circumstance is also increased by the absence, in part, of the usual fluidity of the blood. Our author cautions the practitioner to "recollect the uncertainty of the indication afforded by the pulse at the wrist in the aged," and states that "*the pulse should be counted at the heart.*" We should also bear in mind the frequency of the heart's action is increased, as a general rule, and not diminished, as supposed by some physiologists. Dr. Day found that in 562 healthy women whose mean age was 73 years, that the average number of pulsations is a fraction over 79 in a minute, and that the average pulse is 197, healthy men of the mean age of 68 years, is 72.5.

Of Chapter II. on the preservation of health in declining life we are constrained to notice but a portion only, that relating to the influence of cold must suffice. The idea that cold produces a marked influence upon the mortality of the aged, is one of great antiquity. Celsus remarks "*Senes æstate et autumni primâ parte tutissimi,*" and this observation has been fully verified by statistical observations, according to

Dr. Day. The following table from Quetelet, and based upon 40,000, clearly shows this.

Ages.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sep.	Oct.	Nov.	Dec.
50 to 65	130	122	111	102	93	85	77	85	89	90	100	115
65 to 75	143	132	118	99	91	77	71	80	88	86	98	117
75 to 90	147	139	116	101	87	77	67	75	84	84	100	121
90 and upwards	153	148	125	96	87	75	64	66	76	74	103	129

The following, compiled by Dr. Day, from the mortality tables of the city of London, also confirms this fact, he says:—

The total number of registered deaths, at or above the age of 60, occurring in five years (from the first of January, 1843, to the 31st of December, 1847), amounted to 53,048; while the total number of registered deaths from age or natural decay, during the same period, amounted to 15,136. Reducing these numbers to a scale of 1000, we have the proportion for each month as follows:—

In 1000 deaths from all causes at 60		In 1000 deaths from old age, unconnected with any obvious disease.	
December	127.8	December	112.3
March	99.8	January	109.6
January	98.8	March	102.3
February	96.1	February	101.0
November	86 7	November	85.3
April	79.3	April	83.2
May	74.3	May	75.3
October	72.5	October	71.4
June	68.2	June	66.4
August	67.9	August	65.2
September	64.8	July	64.3
July	64.6	September	63.2
	1000.0		1000.0

We might here remark, *en passant*, that the annual reports of the city inspector of New-York, for the last three years, do not so clearly sustain the truth of the remark of the "Classic Celsus." While giving some general observations on the medical treatment of advanced life, in chapter third, our author introduces the subject of inflammation and the antiphlogistic treatment, especially blood-letting, He says—

> "The physical conditions of the system in advanced life are strongly opposed to the progress of regular inflammatory action; there is, however, a condition dependent on venous congestion, that gives rise to symptoms that in many respects closely simulate it, and that are being daily mistaken for it. These symptoms, however, arise from want of

tone and power in the circulating system, and are connected with local plethora, arising from a deficiency of power to propel the blood forwards. Hence, while endeavoring to remove the local stasis, we must carefully avoid any generally depressing treatment. Slight topical bleedings, either by leeches or cupping, may be advantageously combined with remedies of a tonic and slightly stimulating character, given with the view of equalizing and improving the tone of the circulation. Venesection is not to be thought of. In these cases the lancet is more fatal than the disease."

At no period of life are stimulants more necessary than in old age, and among this class of remedies there is no agent that holds so high a rank as camphor. Narcotics are required at this period less than almost any other therapeutic agents. The discovery of chloroform, and the power it possesses as a solvent of camphor, has proved of immense value in the treatment of many of the diseases of advanced life. In many of the painful affections of the nervous system it is invaluable, combining as it does all the properties of a soporific and stimulant.

The diseases most fatal to persons in advanced life, as shown by the Registrar General's tables for the last five years, are enumerated in chapter sixth. The following table, prepared by Dr. D., gives the comparative frequency of the cause of death at and after 60:

Of 1000 persons who have attained that age, there die of old age,			285·3
Diseases of the respiratory organs	Bronchitis	79·3	237·5
	Asthma	62·4	
	Consumption	35·7	
	Pneumonia	27·1	
	Hydrothorax	10·4	
	Other diseases	22·6	
Diseases of the nervous system	Apoplexy	53·0	130·9
	Paralysis	51·2	
	Other diseases	26·7	
Diseases of the digestive system			59·2
Diseases of the circulating system	Diseases of heart	51·3	53·5
	Pericarditis	1.3	
	Aneurism	0·9	
Diarrhœa			20·3
Influenza			14·2
Erysipelas			7·8
			808·7
Other diseases			191·3
			1000·0

"The remaining 191·3 in the 1000 is made up in a great measure of cases of typhus and dropsy (neither of which have been tabulated by me, because the former is made to include all cases of continued fever, and because the latter is a symptom and not a disease, and may arise from very different sources); of cases of diseases of the urinary organs, of cholera, dysentery, cancer, gout, rheumatism, etc."

Our author adopts, to considerable extent, the arrangement exhibited in the foregoing table. In chapter seventh he treats of the diseases of the respiratory organs, and then in succession those of the nervous, digestive, and circulatory organs, finishing up the volume by considering the diseases of the genito-urinary organs, together with gout, rheumatism, etc. In considering the diseases of the respiratory system, he commences with pneumonia. It will not be our object to follow Dr. Day through, even in a cursory manner, all the diseases of which he treats, but we shall single out one or more from each of the systems enumerated in the foregoing table, and endeavor to present in as clear a manner as possible the value of the peculiar views (if they may be called so) which he advances. By reference to the table, it will be seen that according to the Registrar General's report, bronchitis heads the list, and that it does so from the fact that it claims a greater mortality. Dr. Day doubts the accuracy of this claim, and founds his doubts upon the valuable memoir published some ten years since by Prus.* This memoir contains the results of examinations of 390 persons, at the Bicêtre, whose ages ranged from 60 to 90. Death was found to be dependent on diseases of the respiratory organs in 149 cases. The following is the table showing the comparative frequency of each disease:

"There were 77 cases of pneumonia, 6 terminating in abscess of the lung.
" 26 " pleurisy.
" 18 " tubercular consumption.
" 10 " asthma.
" 8 " bronchitis.
" 4 " pulmonary congestion.
" 3 " asphyxia from meteorism dependent on indigestion.

"The remaining four were isolated cases of comparatively rare disease."

From the above table it will be seen that the deaths from pneumonia were to those of bronchitis, nearly as 10 to 1, showing that in all probability there is a great error in the English mortality tables, (which are not based on post-mortem examinations.)

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* *Mémoire sur les Maladies de la Vieillesse,* in the *Memo. de l'Acad. Roy. de Méd.,* 1840.

The symptoms of pneumonia, according to Dr. Day, do not vary much from those of the adult, except in the signs furnished by auscultation and percussion. The crepitation so characteristic of the first stage of pneumonia in the adult is in old age very rare. It is usually replaced by a sub-crepitant rhonchus, dependent upon the passage of air in large bubbles and through more fluid, and originating in the increased size of the pulmonary cells, and the general tendency to mucous discharges from the pulmonary mucous membrane. The resonance of the voice is not so constantly associated with the bronchial respiration as in the adult. Feebleness of the respiration, or its complete absence over a certain extent, combined with bronchophony, are sometimes the only stethoscopic signs; and according to Dr. D. may be regarded as affording a pretty certain indication of the disease. In relation to the progress of pneumonia in old people, and the signs furnished by auscultation, Dr. Day says that there is undoubted evidence to believe it occasionally passes through all its stages without giving rise to any perceptible morbid sounds.

Neither does the circulating system present any sympathetic evidence at all characteristic of the rise and progress, or existence of inflammatory action. It is a much less trustworthy guide than in earlier life. "In some cases, where the inflammation is most acute, no change is observable in its frequency." Not unfrequently it is small and intermittent. The general febrile reäction is absent, or is less marked than at an earlier period of life. "In pneumonia of the apex of the lung, the face *almost invariably* presents a jaundiced tint."

The progress of the disease is very rapid. The mean duration of 33 cases that recovered, was fourteen days; while in 76 fatal cases the mean duration was only seven days. (Hourman and Dechambre.) The prognosis is highly unfavorable. This opinion is confirmed by the experience of Grisolle, Prus and Chomel. The ratio of mortality seems to vary directly with the age; according to our author, the extreme difficulty of breathing, and abdominal respiration are always bad signs. Lividity of the countenance, the struggle for breath, the incapacity to expectorate, a small pulse, disturbance of the intellectual faculties, loud rattles over the chest, and a cold sweat, taken collectively, afford pretty certain signs of the near approach of death. The free expectoration of thick yellow sputa is regarded as a favorable symptom.

The use of venesection in the treatment of this fearful disease, is yet considered to be *sub judice.* The stronger evidence appears to lie in its favor; nevertheless, Dr. Day thinks "it cannot be had recourse to without fear and trembling;" he prefers local depletions, by leeches and cupping, and believes that, with some very rare exceptions, it will be found equally serviceable in combatting the disease. If venesection be resolved upon, it should be put in requisition at once, "it is only at the commencement of the attack that it can be serviceable." Antimonials must be used with great caution. The depressing effect of tartarized antimony is as clear and striking as in the period of childhood. The stimulating expectorants, combined with ipecac. and antimony, Dr. Day has found to be followed by good results when there is a want of power to throw off the mucus from the bronchial tube; camphor may also be prescribed with advantage, in doses of from two to five grains. In the management of the second and third stages of the disease, Dr. D. presents no new treatment for the consideration of the profession. He has not been able to verify in practice the view of Remak in reference to the ramifying bronchial coagula, said by him to be present in the sputa of patients laboring under pneumonia.

Passing by the remaining diseases of the respiratory organs spoken of in the work, we stop to notice a portion of Chapter VIII., devoted to a consideration of the diseases of the nervous system. Apoplexy and paralysis claim Dr. D.'s first notice. The mortality from these two diseases alone, during a period of five years, according to the Registrar General's report, was 5618, of this number, 2812 were ascribed to apoplexy, and 2806 to paralysis. The symptoms which lead us to suspect apoplexy in the aged, are often very deceptive. According to Dr. D., aged persons are liable to a peculiar form of head affection, dependent, for the most part, upon passive congestion, arising from want of tone in the vascular system. The only available practice in these cases, is to vary the position of the patient, with a view to guard against mechanical stases at particular parts of the brain, and unless there are obvious contra-indications, to administer tonics and mild stimulants. Dr. D. has found the compound infusion of horseradish a good stimulant in these cases; the practitioner should look out for, and guard against them in all long-continued illnesses, especially when there is a want of tone in the vascular system.

A flushed state of the countenance, a tendency to sleep, vertigo, nausea and headache, a general incapacity for exertion, and an indescribable sensation of weight about the limbs, torpor and numbness, or else a sensation of formication or itching of the extremities, double vision, muscæ volitantes or coruscations, difficulty of enunciating certain words, the substitution of one word for another, and indescribable and unaccountable feeling of impending danger, etc., etc., to which may be added the "*cerebral respiration,*"* of Dr. Graves of Dublin, and which, in some instances is well marked, are all enumerated by Dr. Day, among the premonitory symptoms of this disease. The treatment is by no means satisfactory; local blood letting, from the nape of the neck or between the shoulders even, in a majority of cases, is said to increase the danger. When blood letting in any form appears to be called for, it should be used with the greatest caution. Where a more or less paralyzed state follows as a consequence of the congestion or effusion, regular friction with horse-hair gloves, Dr. D. thinks, should have a fair trial before other means are resorted to, and this should be followed by mildly stimulating liniments. If these means fail, he then resorts to the use of electro-magnetism; a weak current should be used, and if found to excite much pain, there is reason to believe that it is doing more harm than good. He has found it to succeed when all other means failed. In aged persons, he has scarcely ever seen any good effects from the use of strychnine in this disease.

Cerebral softening very properly receives a share of attention. He speaks of it under two heads: 1st *acute* softening; and 2d, *chronic* softening. The first form presents scarcely any premonitory symptoms.

"When premonitory symptoms occur, they usually present themselves as intense headache, vertigo, formication, cramps, etc.

In persons of sixty and upwards the acute form is the most common; there is sudden loss of consciousness, contortion of the features, and the limbs on one side are rendered more or less insensible to external impressions, and either lie immoveable and devoid of all power, or else are powerfully flexed. Persons thus attacked often die in a few days, without any return of consciousness; but in the majority of cases consciousness gradually returns, and the use of the paralyzed parts is to a certain degree restored. This apparent improvement is, however, transitory and deceptive, for a progressive torpor of the intellectual faculties is soon perceived, while the paralysis extends and becomes more perfect; and the patient, if not cut off by some of the complications to which I shall presently refer, dies in a state of coma.

As the softening progresses, we sometimes (in about a quarter of the cases) have a considerable amount of frontal headache. Dulness of the intellectual faculties and loss of memory, are almost invariably to be observed; the mouth is drawn on one side, and there is often strabismus. Patients complain of cramps, pains, a sensation of cold and formication in some of the limbs, and sometimes there is partial paralysis. Contraction of one or more of the limbs is a symptom, whose importance has, I think, been overrated by Lallemand and some other authors. It certainly does not occur in half the cases of which we have authentic records.

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* The breathing in this symptom is permanently irregular, and interrupted by frequent sighing, going on for a minute or two at one rate, then for a quarter of a minute or so at another rate. This condition is almost pathognomonic of cerebral disease.

Those who have made cerebral softening their especial study, assert that a very opposite class of symptoms is occasionally noticed; that there may be cerebral excitement, violent delirium, and convulsions.

The rapidity with which the disease runs its course is sufficiently obvious from the following table, founded on fifty-nine cases (twenty-seven of Durand Fardel, sixteen of Rostan, and sixteen of Andral).

Death occurred 11 times during the first two days.
" 26 times before the fifth day.
" 43 times before the ninth day.
" 7 times between the ninth and the twentieth days.
" 9 times between the twentieth and thirtieth days.

Death is seldom preceded by any febrile symptoms. It occasionally happens that the disease merges into the chronic form; and sometimes, but very rarely, there is a gradual remission of the symptoms, and a restoration to perfect health."

The chronic form presents, according to Dr. D., nearly the same class of symptoms, only they are more gradual in their rise and progress.

"In the majority of these cases, the patient complains of a feeling of discomfort, headache, vertigo, and stupor, which may last for weeks and months; then follow more marked symptoms—difficulty in speaking, numbness, formication or pricking of the limbs, and especially of the fingers, partial loss of power and motion, shown, for instance, in one leg dragging in walking, or in the inability to grasp objects firmly.

Contraction of the limbs in these chronic cases is much more frequent than entire loss of power, whereas the reverse holds good, in acute softening: it must not, however, be regarded as a constant symptom, being absent in at least one-fourth of all the recorded cases; neither must it be regarded as a certain diagnostic sign of this disease; it is met with in connexion with disease of the membranes without any affection of the cerebral substance, in cases of mere cerebral irritation, etc. Pains in the limbs and joints generally accompany these contractions; they are usually much aggravated by motion, but not increased on pressure. There is commonly a partial, but scarcely ever a perfect loss of sensation in the paralyzed and flexed limbs. The face becomes partially drawn aside, and the features are devoid of expression. The memory is gradually lost, the ideas become confused, and all reasoning power disappears. It becomes difficult to speak, in part from the required words being forgotten, and in part from loss of control over the organs of speech. The mental condition of the patient is but a few shades superior to that of the idiot. The paralysis gradually extends, the power of retaining the contents of the bladder and rectum disappears, the limbs waste away, and yet the force with which they are flexed is almost incredible, and thus the patient sinks, utterly unconscious of his own pitiable condition. In some cases the flexure ceases and the limbs relax shortly before death.

Such are the ordinary symptoms of chronic softening. We occa-

> sionally however meet with cases in which extensive softening is revealed after death, but in which no perceptible symptom is appreciable during life; and again, in which some time previous to death the symptoms have much abated."

The causes and treatment of both forms of this disease are equally unsatisfactory. The diagnosis is attended with great difficulty, and according to Dr. D. it may be mistaken for inflammation of the brain or of its membranes, for congestion, for cerebral or meningeal apoplexy, or for morbid growths or deposits in the brain. The diagnosis must be determined by the weighing of opposite probabilities. Our author states that the paralysis dependent upon softening of the brain is never relieved by external applications or by strychnine.

The diseases of the digestive organs claim next the attention of Dr. D. In the consideration of the diseases of this system, nothing new appears to be developed; we therefore pass it by, and proceed to notice his observations on the diseases of the organs of circulation. The division into functional and organic is adopted by our author. The statement that the size of the heart and the thickness of its walls usually diminish with advancing years, Dr. Day believes to be strictly correct; although the extreme frequency of change in the aortic valves, in the coats of the aorta, and in the capillaries, giving the heart additional work to perform, renders a certain degree of hypertrophy remarkably common, and hence has led some of our best observers to conclude that in the majority of cases the heart continues to increase to the end of life. Palpitation of the heart is a common disease in old persons; its treatment rests upon the same general principles as in earlier life. There is a peculiar form of palpitation depending simply on weakness of the heart's action. Dr. Day, in speaking of it, says—

> "In place of the ordinary impulse we perceive a mere flutter or tremor; the pulse is weak and irregular, and seems to disappear on pressure; and the body generally presents the ordinary signs of debility. In these cases our main object is to invigorate the patient. We must recommend a highly nourishing diet, a moderate allowance of wine, and a residence in a dry, bracing locality, whilst the strictly medical treatment must consist in the administration of stimulants, as ammonia or ether, of quinine and the other vegetable bitters, of the mineral acids, and subsequently of the milder chalybeate waters."

In the treatment of neuralgia of the heart, a disease closely simulating angina pectoris, our author recommends a liniment composed of equal parts of tincture of aconite and soap liniment, to be applied to the cardiac region; at the same time care should be taken to relieve any disordered condition of the digestive organs, which not unfrequently greatly aggravates the severity of the disease. The organic diseases of the heart are but cursorily noticed. He alludes to the peculiarities of action dependent upon the anatomy of the aged heart, and quotes a passage from Hasse's admirable work, which is as follows: "The progressive enlargement of the two auriculo-ventricular openings is tolerably uniform, that of the two arterial mouths differs; both increase equally until the meridian of life, but the aortic orifice enlarges more rapidly in advanced age than that of the pulmonary artery, so that in old persons the latter is even narrower than the aorta." Dr. Day thinks "this enlargement of the orifices is undoubtedly dependent on the prolongation of the heart's action, and probably takes part in the intermittence and irregularity of its beats, which are so commonly observed at this period of life."

The following remarks, says our author, apply to the treatment of all the forms of organic disease of the heart:

> "We must not be induced by the apparent urgency of the symptoms to open a vein without well weighing the danger. Those who have seen the alarming syncope—the temporary death—that in certain states of the heart may be produced in old persons by a slight venesection, will hardly require this caution. The livor of the face and lips may be intense, and the orthopnœa almost insupportable, and yet we may relieve the patient as effectually, although perhaps not so rapidly, by stimulating the circulation in the skin by friction, liniments, etc., by immersing the legs and feet, and if necessary the hands and arms, in hot water to which mustard or nitro-muriatic acid has been added, by the administration of musk and camphor, and by tincture of assafœtida given with a little gruel as an injection. If these means are not sufficient, a few leeches applied to the cardiac region, or a cupping-glass between the shoulders, are usually as effective in allaying the urgent symptoms as venesection would be, and are unaccompanied by danger.
>
> In incipient dropsy from heart disease, digitalis, properly administered, will often do away with the apparent necessity for bloodletting. In advanced life it is usually advisable to combine it with bark or steel. Is digitalis of service in heart-disease when it exerts no action on the kidneys?
>
> A great deal of our success in treating organic diseases of the heart consists in the proper management of the organs of excretion, especially of the kidneys, and of the bronchial tubes, and in a due and very strict regulation of the diet. All influences, whether corporeal or physical, which disturb the regularity of the circulation, must be most carefully avoided. There are, I believe, no cases in which the patient will not find relief from sponging the chest daily with cold water, and from the subsequent application of a rough towel and the flesh-brush."

While considering the diseases of the urinary and generative organs, Dr. D. speaks of retention of urine dependent upon paralysis of the bladder, and mentions that in the treatment of this affection, he has found that ergot has proven a valuable remedy in his practice. His formulæ is six ounces of ergot to one pint of spirits, a drachm of which may be given in an effervescing draught of citrate of ammonia. In chronic inflammation and catarrh of the bladder, Dr. D. recommends a decoction or infusion of pareira brava, the diosma crenata, and uva ursi, combined with hyociamus, or small quantities of nitric or muriatic acid. He also recommends weak injections of nitric acid, after the bladder has been washed out with tepid water, the solution being allowed to remain for not more than half a minute. Dr. Day makes a few remarks on the varieties of urinary deposits and their connection with the affections of gravel and stone, and expresses it as his opinion that in nineteen out of twenty cases the solution of stone can be brought about, by medicines administered by the mouth or by chemical agents thrown into the bladder, thus obviating in most cases the necessity of resorting to the operation of lithotomy. On this point we quote our author's own words:

> "I have hitherto abstained from offering an opinion on the possibility of effecting the solution of stone in the bladder, but I should be unwilling to conclude this section without expressing my most decided conviction, that in nineteen cases out of twenty a surgical operation might be dispensed with. Why then do affections of this sort fall almost invariably under the hands of the surgeon and not of the physician? I believe that there are two reasons sufficient to account for this. One is, that surgeons have, with few exceptions, never advocated any means proposed for this disease, which did not in some form or other involve an operation; they have clung affectionately to lithotomy as one of the glories of pure surgery. The other is, that a patient who has suffered from the exquisite tortures of stone is likely to choose the means that promises the speediest relief. The surgeon can effect, in a few moments, as much as the physician can hope to do in as many weeks, or perhaps months. But does the patient consider the risk at which this almost instantaneous relief is afforded? I say nothing of the physical pain, for since the discovery of the anæsthetic properties of chloroform the worst forms of human suffering have been annihilated; I refer merely to the danger attendant on the operation. Taking the data afforded by the Bristol and Norwich tables, I find that of one hundred and twenty-four persons operated on between the age of 50 and 60, thirty-one, or one in four, died; of sixty-one persons between the age of 60 and 70, twenty-seven, or one in two and-a-quarter, died; while of ten persons between the age of 70 and 80, three, or one in three and-a-third, died."

Chapter XII. which follows this, is devoted to a summary notice of the diseases of the skin, ulcers, and senile gangrene. We pass this by, in order to notice more fully the concluding chapter of the volume, devoted to the consideration of gout and rheumatism. Dr. Day believes that gout is dependent upon the existence of uric acid or urate of soda in the blood; in this opinion he is sustained by the researches of Dr. Garrod, who has succeeded in separating the crystals of uric acid from the blood. When the acute form of gout shows itself in advanced life, it is more commonly acquired than hereditary, and is not usually so amenable to treatment. The description given by Dr. D. of the symptoms of both forms of the disease is much the same as that laid down by previous writers. The treatment is thus sketched by Dr. Day:

"I believe that, for some time previous to an attack, the liver is generally torpid and congested, that there are accumulated fæces in the large intestines, that the digestive mucous membrane is in an irritable condition, and that the blood is loaded with effete matter. Most authors recommend venesection in such cases; there may be cases in which it is advisable, but in most instances a few leeches applied to the anus, will produce at least equally good effects, without depressing the patient. If the patient have suffered from a hemorrhoidal discharge, we should attempt to re-establish it by aloetic purgatives; and where these fail, aloetic injections sometimes succeed. If the tongue be very foul, and the patient suffer from heartburn, a mild emetic, (fifteen grains of ipecacuanha) is frequently useful, where there is no pain or tenderness in the epigastric region, and if none of the causes which often render the action of emetics dangerous to old persons, as hernia, for instance, be present. Purgatives are always of service in these cases, although the patient may declare that the bowels are regularly open. I usually prescribe a combination of calomel and blue pill (two or three grains of each) to be taken at bed-time, and a warm stomachic purgative the following morning. By the occasional repetition of these means, together with moderate diet, regular exercise, and care in guarding against mental or bodily fatigue, a threatened attack may be often averted, and always mitigated. * * * * *

With respect to the treatment during the paroxysm, it must be recollected that I am speaking of gout as it occurs in advanced life. I shall say nothing of blood-letting, further than that even in adult life, and in strong constitutions, I have never seen any decided benefit from it. Although leeches applied to the affected joint mitigate the pain, they also prolong the attack. Neither shall I notice the innumerable medicines—the purgatives, emetics, diuretics, diaphoretics, and narcotics—that have at different times been recommended in the treatment of this disease. I will simply give the course of treatment which experience has shown to be most commonly efficacious. The three great points to be attended to, are to regulate the action of the liver and bowels by mild mercurials and warm aromatic purgatives, to relieve pain by means of opiates, or in very severe cases, when the patient's tortures prevent sleep, by chloroform, and to diminish the local inflammation by colchicum."

Dr. Seymour has lately recalled the attention of the profession to the use of a decoction of burdock root (actium sappa, U. S.) "as an adjunct to other remedies in acute gout." The following is Dr. S.'s formula and directions:—Two ounces of the sliced root are well washed, and are *slowly* boiled in a pint and a half of water; the fluid is reduced to a pint, and then strained. This pint is to be drank in the course of the twenty-four hours. If the patient does not object to the increased quantity of the fluid, it may be mixed in an equal bulk of milk. It should be continued for several weeks. The local treatment is thus spoken of by our author:—

> "When the tension of the skin is very great, I usually recommend that the part should be kept moist with sweet or castor oil. I do not know, however, that the latter is any better than the former. I have likewise found that relief is sometimes afforded from the application of combed wool, and swansdown; in like manner the pain is often very considerably mitigated by rolling the affected part in oil-silk; but in old persons with a dry skin, it sometimes rather increases than diminishes suffering. There is a large mass of evidence in favor of the application of the moxa during the paroxysm, but I have no personal experience of its effects in these cases. I have frequently prescribed small blisters about the size of a crown piece to the joint with very obvious advantage, at the commencement of the fit. The local abstraction of the serum often gives considerable relief. Although putting the foot in cold water, and the applying refrigerant lotions may undoubtedly allay the intensity of the pain, it is to be feared that this fool-hardy practice has too frequently resulted in apoplexy, paralysis, and gout in the vital organs."

Particular attention should be paid to diet, which should be regulated entirely by the condition of the patient. The treatment of the chronic form must be conducted on much the same principles as in the acute. Local applications in this form are of more value than in the acute. Stimulating liniments may be rubbed in with much advantage in cases of an indolent nature. Dr. D. speaks strongly in favor of the good effects of painting the affected part with an alcoholic solution of iodine. In his short observations on rheumatism, nothing new is presented for the attention of the profession.

The volume before us closes with a short appendix, written for the purpose of calling the attention of the profession to what is termed the "*thermic treatment of lumbago, and other forms of chronic rheumatism, sciatica and other forms of neuralgia, paralysis, etc., etc.*" This treatment "consists essentially in the instantaneous application of a flat iron button, gently heated in a spirit-lamp, to the skin. It is an operation completed in a few seconds, productive of little or no pain, immediate in its effects, and altogether incapable of injuring the pasient." Dr. D. gives the credit of the originality of this form of counter-irritation to Sir Anthony Carlisle. Dr. Corrigan, some three years since, published an account of some cases successfully treated by him by similar means. Dr. Day's mode of application differs slightly from that of Dr. C. In speaking of his own mode, he says, that "the instrument that I employ is shorter and more portable than that recommended by Corrigan. The button, which is about half an inch in diameter, and a quarter of an inch in thickness, is connected by an iron shank, with a small wooden handle. The whole instrument resembles a very small hammer. The shank is curved nearly at a right angle, at about half an inch from the upper surface of the button. On heating the button, which is effected in about a quarter of a minute by the flame of a spirit-lamp, I place the end of the forefinger on the curve; when the heat becomes uncomfortable to the finger the instrument is ready for use. Dr. Corrigan's mode of applying it is to touch the surface of the part affected at intervals of half an inch, as lightly and rapidly as possible. I have usually found more service from very lightly drawing the flat surface of the heated button over the affected part, so as to act on a greater extent of surface. The cuticle is never raised, and the only visible effect is a slight degree of local redness, either in lines, according to my plan, or in circular patches if Corrigan's directions are followed. In his paper he relates a case of paralysis of the upper and lower extremities cured by applying the button daily for about three weeks along the spine, thighs, and legs; cases of lumbago and other forms of muscular rheumatism, of sciatica, of neuralgia of the fifth, and paralysis of the seventh pair of nerves."

Several cases are related by our author, illustrating the use and the beneficial results of this mode of treatment, of which, if our time and space would permit, we would most gladly present a summary to our readers. Sufficient, however, has been said to furnish a clue, at least, to the mode of use of this remedial agent, and the sketch of which must close our notice of this volume.

BIBLIOGRAPHICAL NOTICES.

Art. VIII. *A Theoretical and Practical Treatise on Human Parturition.* By H. Miller, M. D., Professor of Obstetrics, and the Diseases of Women and Children, in the Medical Department of the University of Louisville. Louisville: John V. Cowling and Geo. C. Davis; Cincinnati: H. W. Derby, & Co.; New-York: A. S. Barnes & Co. 1849. 8vo. pp. 463.

Parturition and the Principles and Practice of Obstetrics. By W. Tyler Smith, M. D., London. Lecturer on Obstetrics in the Hunterian School of Medicine. Philadelphia: Lea & Blanchard. 1849. 12mo. pp. 395.

Practical Compendium of Midwifery. Being the Course of Lectures on Midwifery, and on the Diseases of Women and Infants; delivered at St. Bartholomew's Hospital. By the late Robert Gooch, M. D. Prepared for publication by George Skinner, Member of the Royal College of Surgeons, London. Fourth American edition. Philadelphia:. Barrington & Haswell. 1849. 8vo. pp. 339.

The first named work in this article is purely a Western work, an emanation from the medical press of "the far off West." If no other evidence of this latter fact was present, the author's "preface" would be convincing proof. It speaks out clearly the workings of a mind accustomed to think, and shows with marked decision the peculiarities of it. The object which the author, as he states, had in view in the publication of this work, was to render more accurate and intelligible our knowledge in relation to the mechanism of the process of parturition. 'To review the whole subject of presentations and positions with the light which his own experience and that of others has shed upon it, since the time of Boudelocque, and establish for them a classification and nomenclature which, it seems to him, all may adopt." The classification which he recommends, is that of M. Dugès, but the nomenclature he claims to be his own. Neither time nor space, on the present occasion, will permit us to enter into a consideration of the success of Dr. Miller's endeavors. Of his fitness for the execution of his task, we will allow him to speak to our readers in his own words. We extract from the preface: "You are to know, indulgent reader, that the author of the work you are now peeping into is a man rather advanced in life (though you may not be precisely informed of his age—that is a delicate point—), who has seen much, and read some, touching the subjects he proposes to handle; and has withal been accounted qualified to teach others what it has been his chief pleasure to practise, since he was a very young man. He loves his vocation, notwithstanding the difficult and responsible duties it imposes, and would not exchange it for any other; to this attachment, more than to superior capacity he honestly ascribes whatever proficiency or eminence he may have attained in it. Reader, if you have not this love, you have mistaken your calling. For the rest, the author is a back-woodsman, having been brought to light in Kentucky, by a process which it is his purpose to unfold in this treatise. His education was not acquired in academic halls, but in the primitive school-houses of his native state, and upon the ample sward, shaded by forest trees, appurtenant thereunto; so that you see that he was reared after the fashion of Socrates, imbibing knowledge in the school-house under the shade of the trees, and not unfrequently perched upon their boughs." The time spent in the perusal of this work, we assure our readers will not be lost. There is a good deal of originality in it, and we believe the work to be a good addition to Obstetric Science.

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The second named work, that of Dr. Smith, is dedicated to Marshall Hall, and presents a statement of the bearings of the "Reflex Doctrine" of the nervous system upon the process of labor, and the consequences of it. The author of this work states that he commenced the study of Reflex Obstetrics in 1842; since which time he has paid close and earnest attention to the subject. The present work is the result of that attention and study. Reflex obstetics is a new department of the reflex function and its applications. In treating of the bearings of this doctrine, Dr. S. says, that "taking the whole range of reflex physiology, the cause of labor is only second in importance to the cause of respiration, and no one had perceived that the relation of the ovarian nerves to parturition is the same as the relation of the pneumogastric nerves to respiration." There is much originality of thought developed throughout the course of this work, and although we are disposed to believe that well ascertained facts and cautious inductions not unfrequently are superseded by hypothesis alone, still we feel assured that a few years hence will show us that a marked "change has come over the spirit of the times" in relation to this branch of medicine. A new field has here been opened for investigation, and a certain current given to the course of study which must lead to beneficial results. The mechanical views, heretofore so prevalent, will and must receive a blow which will shake their very foundations. The following extract from this work must suffice for the present; on a future occasion we intend to lay before our readers an analysis of its contents.

> "The reflex actions of the uterus are very numerous, and it is upon these, and the numerous extra-uterine reflex actions excited during the process, that the natural performance of parturition essentially depends. Contraction of the uterus, from irritation of the mammæ, as in the act of suckling the child; contraction of this organ from the cold water douche, applied to the vulva or the abdominal surface; contraction excited by irritating the rectum, as by stimulating enemata; or of the stomach, by drinking a gulp of cold water; of the ovaria, by the presence of the menstrual nisus; of the vagina, by manual irritation, as in "taking a pain;" of the os uteri by irritation, as in the introduction of the hand into the uterus—are all to be considered as so many instances of reflex spinal action. Thus, in parturition, the uterus may be excited, in a reflex form, by irritation of the mammary incident excitor nerves; the pubic and abdominal branches of the intercostals; the rectal; the gastric division of the pneumogastric; the ovarian nerves; and also by the nerves of the vagina, and the os and cervix uteri.
>
> "Many of the different forms of abortion—particularly when the causes are extra-uterine—strikingly illustrate the reflex action of the uterus. A series of cases of abortion would be one of the best expositions of reflex uterine action. Abortion may be caused by irritation of the mammæ, from the sucking of an infant, after milk has ceased to be secreted, as in cases in which the mother becomes pregnant during lactation; abortion may be excited, as a morbid reflex act, from irritation of the bladder, by a calculus; by irritation of the trifacial nerve, as in cutting the dens sapientiæ; by the mechanical irritation of coïtus; by plugging the vagina; by disease of the os and cervix uteri—malignant or simple induration, inflammation and ulceration; by the irritation of the placenta attached within the uterine mouth; by ovarian irritation in ovarian disease; by irritation of the rectum, as from ascarides, and the use of irritating purgatives or enemata; by puncturing the membranes, and evacuating the liquor amnii, so as to bring the head of the fœtus to act as an excitant to the os uteri; by irritation of the inner surface of the uterus itself, in cases of blighted fœtus, where the ovum acts as a foreign body; by riding on horseback, or any other violent exercise calculated, by succussion, to bring the head of the fœtus into violent contact with the os uteri; and by other sources of irritation to incident spinal nerves which might be enumerated. All these are so many instances of uterine reflex action, the distant parts of the economy being brought into connexion with the uterus through the medium of the spinal marrow and its special incident excitor and reflex motor nerves. These facts are of most extensive practical application in devising means for the prevention of abortion."

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The well known and deserved reputation of the lectures of Dr. Gooch, renders it scarcely necessary for us to notice it further than to mention the recent publication of a new edition. There are probably but few physicians who have not read these excellent lectures. To such of our readers as have not, (if there be any such,) we would say that the perusal of them cannot fail to impart useful and practical information—a remark which will not apply with equal propriety to all the emanations from the press on this and kindred subjects, at the present time. We most cheerfully call the attention of the profession to this edition, which, in point of typographical execution, etc., is in full keeping with the enterprising spirit of its gentlemanly publishers.

Art. IX.—*Human Anatomy.* By Jones Quain, M. D., Edited by Richard Quain, F. R. S., and William Sharpey, M. D., F. R. S., Prof. of Anatomy and Physiology in University Coll., London. First American from the fifth London edition. Edited by Joseph Leidy, M. D. In two volumes. With over five hundred Illustrations. Philadelphia: Lea & Blanchard. 1849. 8vo. pp. 638—639.

We have here one of the best expositions of the present state of anatomical science extant. There is not probably a work to be found in the English language which contains so complete an account of the progress and present state of general and special anatomy as this. The English editors, Drs. Quain and Sharpey, have thoroughly and carefully incorporated into this work the researches of modern anthropotomists and histologists of continental Europe; thus rendering it one of the best works within the reach of the devotees of this department of medical science. In the language of Dr. Leidy, "the department of general anatomy or histology, so important to a proper understanding of physiology, will be found to have been minutely and ably discussed and brought up to the day." The book is also the first systematic treatise in the English language, containing the history of the ossification and development of the individual bones of the skeleton, which must render it of peculiar value to the anatomist. Topographical anatomy, as also abnormal arrangements of the arteries and veins, has been fully attended to; and the whole being illustrated by more than five hundred well-executed wood engravings, cannot fail of rendering it a valuble book, and an acceptable offering to the American student. Such are some of the leading characteristics of the work before us. The descriptions which it contains are remarkably clear and explicit. The American editor has done his task with credit, and a glance at the typographical execution of the work will show that its enterprising publishers have acted their part well in this respect—and in presenting to the

American profession this edition, have placed us all under lasting obligations. By the anatomist this work must be eagerly sought for, and no student's library can be complete without it.

ART. X.—*The Pathology and Treatment of Asiatic Cholera* (so called). By A. L. COX, M. D. Second edition. New-York: John Wiley. 1849. 12mo. pp. 77.

The Cholera; its Causes, Prevention and Cure. By CHARLES RICHARDSON, M. D. New-York: D. Appleton & Co. 1849. 8vo. pp. 32.

We have here laid before us for notice two works, intended principally for the public eye. We do not deem it necessary for us to enter into a consideration of the contents, much less the motives which have led to their preparation. These will readily suggest themselves to the strictly professional reader, and therefore need no comment at our hands. Suffice it to say, that such of our readers as feel inclined to give them a reading will find some "original ideas," if not new modes of reasoning, the rarity of which will fully compensate them for the time spent in their perusal.

ART. XI.—*Rigby on Dysmenorrhœa and other Uterine Affections, in connexion with Derangement of the Assimilating Functions.* Barrington & Haswell's Medical Bulletin for February, 1849. Philadelphia, 1849. 4to. pp. 40.

By some inadvertence, unintentional on our part, this valuable little monograph, republished in the present form by Messrs. Barrington & Haswell, of Philadelphia, escaped our notice in its proper time. This work of Dr. Rigby has been before the English public for some time, and at home, as well as abroad, has many ardent admirers. It is dedicated to its author's "excellent friend" (Dr. Prout,) to whom Dr. R. acknowledges his indebtedness for much valuable information. He considers Dr. Prout's work on Stomach and Renal Diseases to have been the foundation upon which he has ventured to build this little superstructure. At the end of the work is given a few brief observations on the mode of conducting an examination of the urine under the more ordinary conditions in which it occurs.

PART THIRD.

FOREIGN MEDICAL RETROSPECT.

PHYSIOLOGY.

Conclusion on the Physiology of the Nervous System. By R. B. Todd, M. D., F. R. S. (*Med. Gaz.*) Dr. Todd, in a recent lecture, delivered at the Royal College of Physicians, London, has presented the following conclusion, which he believes the present state of our knowledge warrants us in assuming to be proof respecting the mode of action of the nervous system in a state of health.

1. That the nervous system, accumulated in masses, and spreading by its nerves throughout the body, mingling with the proximate elements of the various tissues, consists chiefly of a proximate element, of complex composition—namely, albumen, in combination with phosphorus and certain fatty substances, all well suited to the maintenance of constant and lively chemical action.

2. That this material is developed in two forms—the vesicular or gray nervous matter, the fibrous or white,—and that the combination of these two different kinds of nervous matter, differing probably both in chemical composition, and in the form of their elementary parts, but more strikingly different in the one than in the other, takes place in the masses called nervous centres.

3. That at the points of junction or of intermingling of these two forms of nervous matter, blood is very freely supplied—very much more freely than where the fibrous matter exists alone. At these points there is generated constantly and unceasingly a force, which in its nature resembles very closely the galvanic force, or current electricity, as developed in the galvanic battery, or the magneto-electric machine. Adopting the language of the illustrious Faraday, which expresses with clearness and precision the fundamental phenomena of the electric force, we may call the nervous power a polar force, generated in the centres, and propagated by the rapid polarization of the neighboring particles in various directions. The mode of generation of this force, the velocity with which it is transmitted to distant parts of the body, the beautiful provisions adopted for its insulation, have long attracted the notice of physiologists, and have led many to adopt the

notion of its identity with electricity. But there are ample grounds for the opinion, that, although nearly allied to electricity, it differs from and is probably a higher relation of force than that power.

4. The provisions made for the generation of this force has an interesting relation to the conditions whereby the galvanic current is generated in the battery. Two dissimilar forms of nervous matter, both bedewed by the same blood, represent the zinc and copper, with the intervening electrolyte of the battery; and as the activity of the battery, and the energy of the galvanic force, depend on the amount of chemical action between the fluid, which is interposed between the metals and one of them, so the activity of the nutrient or chemical changes in the nervous centres determines the degree of development and vigor of the nervous force. And as in the galvanic battery we look to the nature of the metals as well as to that of the interposed fluid, to enable us to judge of the probable quantity and quality of the force generated; so, in the nervous battery, if I may so speak, we must look to the nature of the nervous matter of both kinds, and to the quantity and quality of the blood, to determine the amount and energy of the nervous force developed. Hence we may fairly assume that while the development of the nervous force is much influenced primarily by the nature of the nervous matter, it likewise is greatly dependent on the quantity, but more especially on the *quality* of the blood.

5. That the brain and spinal cord (and I beg to state that I use these terms to signify respectively the intra-cranial and intra-spinal nervous mass), as the great centres of the nervous system—the great nervous battery of the body—show distinctly a division into two portions: one in which nerves are implanted; the other which has no immediate connection with nerves, and communicates with them only through the medium of the former part. Thus, in the brain, the hemispheres, the corpora striata, the optic thalamus, thetubercula quadrigemina, and the large mass of vesicular matter connected with them and the cerebellum, have no immediate connection with nerves—no nerve is implanted in any one of these centres. The functions of these centres are all of a mental nature,—either the development of intellectual change, or the exercise of volition, or perception, or emotion, or the balancing and coördinating of movements,—and they exercise a control over the various segments of that portion of the cerebro-spinal centre in which nerves are implanted through commissural fibres which pass from them to the various segments of that centre. That part of the cerebro-spinal axis in which nerves are implanted,—which was fully recognised by the distinguished Prochaska, and by him designated the *sensorium commune*—this part is in itself incapable of originating any nervous action, except in virtue of some physical change in it: it cannot develop any mental action except in obedience to a stimulus from some of those centres already mentioned as belonging to the encephalon. This part extends from the upper part of the crura cerebri to the extremity of the spinal cord, and all its actions are physical, unless when excited and guided by any of the encephalic centres. It is the centre of all those reflex actions which take place through the spi-

nal or encephalic nerves. This part corresponds to the true spinal cord of Dr. Marshall Hall, who, however, recognises it in two sets of fibres—one which does not pass beyond it, and another which extends from the various segments up into the brain, and which, according to this author, would establish a direct communication between the brain and the nerves. To this latter doctrine, however, there are many and fatal objections.

Relation between the Vital Powers and the Molecular Constitution of the Organs. By Dr. Grainger.—Among the prime questions of the animal economy, there are few, if any, points of higher moment than that which concerns the relations existing between the vital powers and the molecular and chemical constitution of their organic instruments. We have at present a much clearer insight into these interpendencies than had hitherto ever been obtained. Thus, in the vegetative existence, we can distinctly trace the new organic matters introduced into the interior of the system through many, and in not a few instances, through all their manifold and important changes, till at length, having served their purpose, and constituted for a time a component part of the machine, they are cast out to be replaced by new supplies. That there is an incessant molecular destruction, or to speak more correctly, mutation of the living body, is indeed no new truth, since it has been known from the infancy of science. "Life," to borrow the eloquent language of Cuvier, "is a continued vortex, of which the direction, all complex as it is, remains constant, as well as the kind of molecules propelled by it; but not so the individual molecules themselves, which change without cessation, so that the actual matter of a living body, although it is the depository of forces which will constrain future matter to march in the same direction with itself, will soon be there no longer."

But it is a very different thing to know the general fact of this eternal change, and to be able as we now are, by the aid of organic chemistry, to trace each act of the metamorphosis; to be able precisely to define what becomes of the saccharine and fatty principles of the food; to be able to follow the albuminoid matters, the phosphorus, the earth, alkaline and metallic salts; to have a clear perception to what particular class of organs they go; how they are used up in the production of different kinds of force, or in the formation of various secretions; and finally, to find in the very débris and excreta of the body the sure and certain measure of the vital action itself. It is a great fact to know that no force is generated, that no heat is evolved, that no motor power is produced, that no nervous action takes place,—nay, that even no thought passes through the mind, without equivalent changes in the form of the organized materials of the frame.—*Lon. Med. Gaz.*

PATHOLOGY AND PRACTICAL MEDICINE.

Statistics of Pulmonary Consumption, by Prof. Walshe. The following summary of important results are found appended to an elaborate report, derived from the records of the Hospital for Consumption, London, and contained in the Med.-Chir. Rev. for January last:

1. There apparently exists a greater proneness to early marriage among phthisical, than non-phthisical persons; this greater proneness exists in both sexes, and, in the cases analyzed, prevailed to the same amount in males and females.

2. Of a given mass of patients entering the hospital in all stages of the disease, and in every variety of general condition—between the actually moribund state and that of but slight constitutional suffering—the number leaving it, on the one hand, *improved* or *unadvanced* was more than double that, on the other hand, leaving in *a worse state* or *dying within its walls* (the exact ratio is 67.84 : 32.16). If the cases, in which death was actually imminent at the period of admission, were excluded, the result would be very materially more favorable than this.

3. In 4.26 per cent. of the cases, complete restoration to health, not only as regards apparent disturbance of the functions generally, but as regards local evidence of active pulmonary disease was effected.

4. Complete removal of symptoms was more frequently effected in the male than in the female: but, on the other hand, the results were, on the whole, slightly more favorable in the latter than in the former sex.

All patients whose condition grew worse, while they were in the hospital, had reached the stage of excavation before their admission; and all patients, whose tubercules were yet unsoftened on admission, left the hospital either improved, or having had a *statu quo* condition kept up.

Improvement is more probable than the reverse, even where excavation exists on admission.

6. In a given mass of cases, the chances of favorable influence from sojourn in the hospital will be greater, in a certain (undetermined) ratio, as the duration of the disease previous to the admission has been greater,—in other terms, natural tendency to a slow course is a more important element of success in the treatment of the disease, than the fact of that treatment having been undertaken at an early period.

7. The mean length of stay in the hospital in the most favorable class of cases, nearly doubled that in the least favorable.

8. The chances of benefit are more in favor of those whose trades are pursued out of doors (wholly or partially), than of those who work altogether within doors.

9. The results did not appear to be influenced by the laborious or non-laborious character of the trade individuals might have pursued.

10. The age of the sufferers did not exercise any very material influence on the character of the results.

11. Patients coming from the country have, on an average, a slightly stronger chance of improvement, than the residents of London and the suburbs.

12. Patients admitted during the warmer half of the year, benefit by a sojourn at Brompton, to a slight extent, more than those received during the six colder months.

13. From a comparative analysis of the family histories of 446 persons, 162 of them phthisical, 284 non-phthisical, the final conclusion flows:—*that phthisis in the adult hospital-population of this country is, to a slight amount only, a disease demonstrably derived from parents.* It is possible (nay, indeed, *probable*, for, in adults having a parental taint, the outbreak of the disease occurred a mean period of two years and nine months earlier, than in those free from such taint, and that, were investigation extended to infancy, childhood, and youth, the ratio, of cases of parental taint among the phthisical, would be proportionally greater than it proves where inquiry is limited to adults. But, on the other hand, there is no single valid reason for *supposing* (prior to actual experience) that the increase in that ratio would be of more than trifling amount. Again, whether the law differs in the adult portion of the middle and upper classes of society, from that holding in the humbler classes (those supplying hospitals,) can only be positively determined by an analysis of family histories collected among the former classes; meanwhile, it appears justifiable to doubt the reality of any such difference.

14. If no distinction of sex be made, it appears that the softening point is attained with no very unequal rapidity in the right and the left lung; but such difference as exists signifies that softening is, on an average, more quickly accomplished on the left side than on the right.

15. But the law seems very clearly to differ in the two sexes in regard to this point: the disease is more rapidly evolved in the right lung of males, and in the left of females.

16. Age exercises some influence over the course of the disease in the two sexes; the excess of frequency with which the right lung had reached the second and third stages was within 2 per 100, the same before and after the age of 30; whereas in females the excess of frequency with which the left lung was found in those stages was about 45 per 100 greater, after, than before, that age.

17. Hæmoptysis is a symptom of extreme frequency,—occurring in about 81 per 100 of the cases.

18. It was of very slightly (2 per 100) more frequent occurrence in males than females.

19. Hæmoptysis to a medium amount is about four times less common than to very slight or to profuse amounts (both taken together). Very profuse hemorrhage from the lungs is more common in males than females.

20. Medium frequency of recurrence of hæmoptysis is materially less common (and this in both sexes) than a single, or than repeated attacks. Further, repetition of hæmoptysis is more common in males than in females.

21. It is materially more common for a first hemorrhage to be more profuse than subsequent ones, than for subsequent ones to be more profuse than the first.

22. Hæmoptysis is more frequently met with (and this is independently of any influence of duration of the disease) in persons who have reached the second and third stages, than in those whose lungs have not yet softened. This proposition is more markedly true of males than of females.

23. There does not appear to be any notably greater tendency to hæmoptysis, where the right lung has reached a more advanced stage than the left, nor vice versa, where the left has taken the lead. It seems improbable that either lung is more effective in causing hæmoptysis than its fellow.

24. The frequency of hæmoptysis increases with advancing years in both sexes. The increase is more abrupt in females than in males, and in the former appears connected with the catamenial function.

25. This greater frequency of hæmoptysis in persons of more advanced years, does not depend altogether on greater duration of the disease; for those, who had had hæmoptysis, had been phthisical for only a mean period of eight months longer than those who had not spit blood.

26. The most common periods for the occurrence of hæmoptysis, were, at the very outset, or after the expiration of the first month, unless it has actually appeared as the first, or among the first symptoms. The phrase "first symptom" here, is to be understood with the qualification already explained.

27. In upwards of half the cases of notable hemorrhage (beyond 4 oz.) this occurs, or has occurred, as the "first symptom," corroborating the inference as to the excess of amount of first over subsequent hemorrhages.

28. Hemorrhage of this âmount is rare as a coëxistence with other first symptoms (in 1.13 of these cases) appreciable by the patient.

29. Streaked or tinged sputa are, on the contrary, of very common appearance amongst the earliest symptoms.

30. But streaked or tinged sputa are rarely (or never) *the* "first symptom" singly and alone.

31. Season does not appear to exercise any marked influence on the occurrence of a first hemorrhagic attack.

32. Hæmoptysis never appeared as the *bonâ fide* first symptom in these cases, the phrase being understood in its absolute sense without qualification.

33. Pulmonary apoplexy is not the cause of phthisical hæmoptysis; the coëxistence of pulmonary apoplexy and tubercles in a person who has had hæmoptysis, more or less recently before death, is at the least very rare. The common cause of hæmoptysis in tuberculous persons, is intense congestion ending in molecular ruptures.

34. Expectoration of blood in persons laboring under chronic bronchitis, with or without emphysema, but without notable disease of the heart, justifies in itself a suspicion of the existence of latent tubercules.

35. A given mass of cases of cancer of the lung will be attended nearly as often with hæmoptysis of all amounts, and greatly more often with hæmoptysis above an ounce at a time, than an equal mass of cases of phthisis. But cancerous disease of the lung is, comparatively speaking, so rare, that this proposition does not materially affect the diagnostic value of hæmoptysis in phthisis. Besides, the distinction of the diseases is, clinically, easy.

36. Not only does chronic empyema not give rise in itself to hæmoptysis, but empyema, established in a phthisical person, appears to a

certain extent prophylactic against the hæmoptysis which is almost an appanage of the latter disease.

37. I have never once seen cardiac disease, of such kind as to cause hæmoptysis, coëxistent with *phthisis*, using the term in its practical sense; but in a fair number of instances I have seen advanced cardiac disease in persons whose lungs contained *crude tubercles and gray granulations*, which had been completely, or almost completely *latent*.

38. Contrary to common belief, it may be affirmed, that when the *nisus hæmorrhagicus* in women menstruating imperfectly, directs itself to the lung, and leads to the evacuation by that organ of a quantity of blood, amounting to or exceeding an ounce, there is motive for suspecting the existence of tubercles.

39. All these propositions tend to exhibit in strong light the diagnostic signification of hæmoptysis *quoad tubercle;* but it is to be remembered that they will only hold completely true, if applied to *latent* as well as *obvious* tuberculization.

40. The diagnostic importance of hæmoptysis as a symptom of tuberculization of the lungs is, indeed, extreme,—even sputa, simply streaked or tinged with blood, are not without significance under certain circumstances.

41. Hæmoptysis is rarely "directly" fatal; more frequently so in males than in females.

42. Frequently-recurring hæmoptysis does not reduce the mean duration of life in any given mass of tuberculous cases.

43. A first hæmoptysis having been severe, it is unlikely that a subsequent one will kill "directly;" and a first hemorrhage being moderate, subsequent ones are not likely to be severe.

44. The prognosis of hæmoptysis is materially more unfavorable in males than in females.

Conclusions respecting the Pathology of Chorea, by R. B. Todd, M. D., F. R. S.—1. That chorea is a disease occurring at a time when the nutrition of the brain is passing as it were through a state of transition, from that of infancy or very early childhood, to that of the adult period, when that organ is peculiarly prone to suffer from mental shocks, or other causes of disturbance of the system, and more especially when the blood is in an unhealthy state, deficient in some of its staminal principles, or containing some morbid element.

2. That the part of the brain mainly affected is the centre of emotion, but that the extent to which it suffers is sometimes limited to one side of that centre, sometimes to both, again extending to the cerebellum or to the corpora striata, or optic thalami.

3. That the nature of the cerebral affection is one of weakened nutrition, with some degree of irritation; as poor blood, rendered perhaps impure by the presence of the matter of scrofula, or of rheumatism, or by some morbid matter peculiar to chorea, excites the nervous battery, and causes it to generate its force feebly and irregularly. The centre of emotion thus feebly excited and irritated by the presence of an abnormal ingredient in the blood, extends its feeble and irregular

polarity to that portion of the centre of implantation of the nerves, which, as the polar state of the conductors of the battery is regulated by that of the battery itself, exhibit the same enfeebled polarity as the centre in which they are implanted.

Lastly. The disease is essentially one of depraved general nutrition, which must be set right before the symptoms which arise out of the local disturbances can be removed; and this is the point of practical interest which must regulate our treatment of the disease.

These conclusions respecting the pathology of chorea receive confirmation from the facts to which I may allude—namely, that choraic movements occur in certain gouty states, and also in white softening of the brain, arising from diseased arteries. Under both these conditions the nutrition of the brain, as well as that of the nerves and muscles, must be depraved and weakened; depraved, especially in the former instance, by the matter or poison of gout; weakened in both.—*Lon. Med. Gaz.*

Treatment of Tubercular Meningitis in Children.—By V. Duke, M. D.—In the treatment of this disease Dr. Duke considers that the usual antiphlogistic means, such as bleeding, mercury, etc., is less admissible, and less likely to be successful. He almost always commences the treatment of a suspected case by giving an emetic of ipecacuanha or tartar emetic, and with great benefit and perfect safety. Purgatives are to be used but sparingly; calomel and jalap, or rhubarb, or senna; or, in cases where there is much irritability of stomach, half a drop of "Short's" croton oil will be the best, preceded by a purgative enema.

These evacuations having been premised, the propriety of blood-letting comes to be considered. This will depend upon the strength of the child and the amount of inflammatory symptoms: if these are marked, blood-letting will be indicated. Dr. Duke recommends the application of leeches to the mastoid process or to the temples, and, in some very acute cases, bleeding from the arm. Mercury, of course, should be given, and its affects are good, but not marked, as in some other inflammatory diseases. Calomel with opium, or mercury with chalk, or magnesia with James's Powder and Dover's Powder, are preferred by Dr. D. Next to these remedies come counter-irritants to the head, cold applications, fomentations to the feet or abdomen, etc.

Dr. Duke states that he has tried iodine in these cases, but cannot "speak very decidedly of any success fairly attributable to its use."—*Dub. Jour Med. Sci.*

Trichina Spiralis observed in the Living Subject.—By James Miller, M. D.—Dr. Miller, at the session of the London Pathological Society, held April 16th, brought forward the particulars of the following case: Elizabeth Harmer, æt. 49, during the early part of last month presented herself at the Western General Dispensary, with a circular, cupped, dense, and painful tumor, about the size of a shilling, springing from the left border of the tongue, near its root. In the neighborhood of the base of the tumor some induration of the tongue existed, and severe pain was felt in the cheek, pharynx, and ear of the affected side. The countenance of the patient was care-worn, and her general appearance rather cachectic. Until the last two years her health had been very good; but latterly she had complained of a feeling of general debility. The tumor looking suspicious, and causing constant pain, its removal was recommended. She now came under the care of Mr. Anderson, who placed a ligature round the base of the tumor, carefully including all the indurated part.

Considerable hæmorrhage followed when the ligature had cut through the texture of the tongue; small portions were removed by the scalpel. In fragments taken from the cut portion, numerous trichinæ were discovered imbedded in a columnar structure, for the most part parallel, but very fragmentary. Dr. Miller failed to recognise in this at first the nonstriated muscular fibre, until his ideas were corrected by a more precise examination of the tumor by Mr. Dalrymple, who considered this specimen no exception to the occurrence of the entozoon in muscular tissue being limited to the confines of the portions removed, which consisted apparently entirely of trichinæ and non-striated fibres.

The remainder of the portion removed merely consisted of normal mucous membrane, under which was some indurated matter in a state of advanced organization; the case has some interest in the fact of this entozoon being noticed in the living subject, as well as its presence in the non-striated muscular fibre.—*Lon. Med. Gaz.*

On the Differential Diagnosis of Neuroma.—By R. W. Smith, M. D.—The malignant tumors are occasionally found involving the trunks of the nerves, but the true neuroma is, I believe, a disease of a benign character. Bayle, Cayol, and other eminent pathologists, have stated that it is identical with scirrhus; but the following considerations induce me to agree with those who maintain the opposite opinion:

1. To whatever size the tumor may attain, or however long it may have existed, we do not find that it affects the surrounding tissues otherwise than by its pressure; it never converts them into a texture similar to itself; the form alone of the nervous trunk with which it is connected is altered, its component fibres being separated from each other and flattened; it contracts no intimate adhesion either to the contiguous textures or to the integuments, which can be freely moved even over the largest tumors; nor does it affect the lymphatic glands, either in the vicinity or at a distance.

2. It does not exert that specific and destructive influence upon the constitution which forms so remarkable and so constant a feature in the history of cancer; it is true that the general health of the patient is frequently impaired, but this is to be ascribed in such cases to the continued suffering which he endures, and not to any specific reäction upon his system.

3. The disease does not recur after the removal of the tumor, either in the part originally affected or elsewhere. Whether the tumor (when of spontaneous origin) has been extirpated, or the operation of amputation performed, the patient has been in every instance permanently re-

lieved from suffering. How different is this result from the melancholy consequences of operations undertaken for the cure of malignant disease!

The case recorded by Liston does not tend to establish the malignant nature of neuroma; it was an instance of medullary tumor in the popliteal space, involving the posterior tibial nerve; but, as remarked by Knoblauch, "has formationes heterologus neuromatum nomine appellari nolimus, quum nihil cum istis commune habeant et imprimis quoad medendi rationis successum tantopere ab iis differant. Dentur his nomina ipsis propria, ut etiam Strukius casum a se observatum fungum medullarem nervi mediani nominat."

4. The character of the pain which accompanies neuroma is totally different from that which distinguishes cancer.

5. The structure of neuroma, as revealed by the microscope, presents none of the characters which are supposed by modern pathologists to be diagnostic of malignant disease.—*Dub. Jour. Med. Sci.*

On the Treatment of Eczema of the Scalp of Children, and of the Legs of Adults.—By T. H. Burgess, M. D.—As eczema is a constitutional and not a local affection, it is obvious that the treatment should be principally directed through the system generally to the seat of the disease. In the chronic form of the eruption this is especially the case; and here the first indication, after the usual measures of cleanliness have been adopted, is to restore the tone of the system by means of a course of mild tonics and alteratives. When circumstances are favorable, and the proper time arrives for arresting the discharge, it should be effected in as gentle a manner as possible, so as not to derange the internal organs; and for this purpose I prefer mild alkaline lotions of the carbonate or bicarbonate of potass, and the frequent use of the simple or emollient bath, in which the patient, unless very feeble, should remain at least one hour; the usual method of keeping the patient in twenty minutes or half an hour, being useless.

If there is an abundant serous exudation, and much smarting in the parts, half a drachm of sulphuric acid in a pint of barley-water will be found very useful. The patient should commence with small doses, and take a little cold water after each dose, until the stomach becomes accustomed to the acidulated drink. If the discharge continues undiminished, and the eruption does not appear to be affected by those remedies, we must have recourse to alteratives, as sarsaparilla and hydriodate of potash, to active purgatives, if the patient is strong, add to lotions of the nitrate of silver, or of the bichloride of mercury. If there is any inflammatory tendency in the parts, the application of a few leeches behind the ears will be necessary.

Chronic eczema of the legs in adults, and especially when the patients are of a debilitated or broken-down constitution, are generally very difficult and unsatisfactory cases to deal with. The practitioner seldom sees the case until the disease is so fully established, and, as it were, engrafted on the limb, that the habitual condition of the parts seems to be that of subacute erysipelas, with puffiness of the ankles, and a swollen if not varicose state of the veins; all denoting a sluggish or impeded circulation in the extremity. This state of things not infrequently terminates in that form of indolent ulcer of the legs so familiar to practitioners, and so difficult of cure.

For cases of this description I have found the application of the vapors of sulphur and iodine, in combination, the most certain and effectual remedy, when assisted, during the interim of the applications, by bandaging the limb from the foot upwards.

My attention was directed several years ago, by Mr. Alfred Walker, to a preparation of sulphur and iodine, the vapor of which is an admirable local application in several cutaneous diseases. At that period I witnessed its marked benefit in many cases of chronic ulcer, under Mr. Walker's care. These remedies combined seem to possess healing properties which are not manifested when they are used separately. When employed judiciously, and in appropriate cases, they appear to alter the vitality of the morbid parts, and to induce a state of healthier action. If the eruption is indolent, they gently stimulate the diseased surface into greater activity; and by regulating the strength of the remedy, according to the nature of the case, and the object in view, the most salutary effects may often be derived from its use. I have seen cases of lepra of several years' standing, which had resisted every other treatment, cured in a very few months by the application of the vapor of sulphur and iodine. It is particularly applicable to squamous and tubercular diseases of the extremity, to chronic eczema, and ill-conditioned ulcers of long standing. It may be administered in this form—℞. Sulphuris, ʒiij.; hyd. sulph. rubri. ℈ij.; iodinii, gr. x. M. fiat pulv. sex.

One of the powders to be used in the following manner three times a day. If the disease be seated on the limbs, a tin case, or even a common jar, which will answer as well, provided it be large enough to hold the limb, should be procured; a heated iron is to be placed at the bottom of this apparatus, with a grating above it to protect the foot or hand. One of the powders being placed on this heated iron, the limb is to be instantly put into the bath, the mouth of which should be covered over to prevent the vapor from escaping. The limb may be continued in the bath for from fifteen to twenty minutes, according to circumstances. In the course of a day or two the proportion of iodine may be increased; for example, thirty grains of iodine, and at a later period double the quantity, may be incorporated with an ounce and a half of the flowers of sulphur, to be divided into twelve powders, and used in the same manner as the former. I do not mean to extol this agent as a specific for the cutaneous eruptions indicated above; neverless, from what I observed both in Mr. Walker's practice, with reference to ulcers, and in my own with regard to skin diseases, I think it is worthy the attention of practitioners, and that it will be found a very efficacious remedy.—*Lon. Med. Gaz.*

SURGERY.

Cases of Gun-Shot Wounds.—By Geo. D. Gibb, M. D.—On this occasion I enclose forty-five cases of gun-shot wounds, of the upper and lower extremities, and which will form the conclusion of my subject. They present a very great variety in their nature, almost every part indeed, having been implicated. Many of those, where the joints were involved, have terminated in a most successful manner, some not even being followed by anchylosis, as shone in cases 72 and 73, where the balls traversed the articulation of the knee.

I must here state, that I have detailed some cases which have ended fatally; it would not be doing justice to report all the good and leave out the bad; I have considered this so important in relation to fractures of the thigh, that I have omitted none I had the notes of. The results of the treatment in cases of fractured thigh tend further to establish the doctrines already laid down by the majority of British surgeons, namely, to perform primary amputation in cases whether of simple or comminuted fracture, as well as in those of a more severe and complicated form.

The experience of the Parisian surgeons, from the events of February and June, has not advanced our knowledge of military surgery a great deal; a perusal of the reports on gun-shot wounds before the Academy of Medicine, will clearly demonstrate the truth of this. Instead of amputating in all cases of fracture of the thigh, they have tried to save the limbs in a very great number, and the result has proved most disastrous; and even, when a secondary amputation has been performed, the patient almost invariably has succumbed.

Out of twelve cases which I have given, only six were saved, and they form the entire number of cures throughout the hospitals in Paris, while many more indeed may be added to the number of deaths. Many cases, also, which were related as cures before the Academy, have since died.

Of the successful cases, the wounded limbs in all were much shorter than the sound, and added to deformity in two or three, they cannot be considered as useful members to the patient. The case of disarticulation at the hip-joint, No. 59, is the only successful one out of four performed in the month of June.

Four cases of wound of the knee-joint were to be seen in the Hospital St. Louis; two terminated without any bad consequence whatever; one with anchylosis; and the fourth died.

SUPERIOR EXTREMITY.

No. 39. A case in the *Hotel Dieu*, under M. Blandin, where a ball had passed through the shoulder-joint from behind, forwards. Inflammation followed, with suppuration, and the case has terminated with complete anchylosis.

40. A case in the *Hotel Dieu*, under M. Roux, where a ball had passed through the right arm immediately below the shoulder, fracturing the humerus, and emerging outwards in front of the chest. Union of the fractured bone has followed, and the patient was discharged well some weeks ago.

41. A case in *St. Louis*, under M. Jobert, of fracture of the upper part of the left humerus, from a ball, involving the shoulder joint.

Primary amputation at the joint was performed after the injury, which was not followed by any bad consequences, and by the 15th August the cicatrix of the stump had completely healed.

42. A case in the *Val de Grace*, under M. Baudens. An officer had his left arm shattered by a ball, below the shoulder joint. Primary amputation was performed through the surgical neck of the humerus. This case has been doing well, but a speedy cure was retarded from the patient's having an impaired constitution.

43. A case in *St. Louis*, under M. Jobert, of wound of the arm, with compound fracture near the shoulder, from a ball, necessitating primary amputation at the joint. The patient was doing well for some weeks afterwards, but succumbed from purulent absorption.

44. A case in *St. Louis*, under M. Jobert, of comminuted fracture of the right arm from a ball, which had entered its centre from the front, and escaping three inches below the shoulder. The bones had united by the 15th of August, but at that time a large quantity of callus remained unabsorbed. He was discharged from the hospital in September. None of the comminuted fragments of bone were removed in this case.

45. A case in *St. Antoine*, under M. Nélaton. A ball had entered the anterior surface of the upper third of the right arm, passing obliquely downwards and backwards, and escaping at the middle of its inner side, in its course severing the brachial artery and median nerve. This has been followed by loss of sensation in the hand and lower part of the fore-arm. When the patient coughs, or laughs, or talks loudly, he is immediately seized with a darting pain in the arm, along the course of the wound, which is aggravated on expiration.

46. A case in *La Charité*, under M. Velpeau. A ball had passed across the anterior surface of the elbow towards its inner side, and not injuring the joint. The patient also had a wound of the left hand, rendering amputation of third and fourth fingers necessary; and furthermore he had a severe contusion over the upper part of the left side of the thorax. He was discharged well in August.

47. A case in *La Pitié*, under M. Michon, where a ball had entered at the external part of the left elbow-joint, fracturing the external condyle of the humerus, passing posteriorly, wounding the triceps and neighboring muscles, and escaping at the internal surface of the arm, about four inches from the elbow. Inflammation followed, with suppuration and immense swelling. A few weeks after, some of the ligaments of the joints were sloughing and protruding from the lower wound. Several small splinters of bone were removed, and by the 18th October the wounds had healed, and the case terminated in anchylosis, the forearm being permanently pronated.

48. A case in the *Hôpital des Cliniques*, under M. Geraldis, of a compound fracture of the left elbow-joint, from a ball, in a lad aged 17. This case was in such a bad state when I first saw it, from the serious implication of the joint, attended with inflammation and other bad consequences, that I considered the lad's life sacrificed, by not having resorted to amputation. However, with the persevering application of cold water from a vessel elevated above the arm, and allowed to pour

over it drop by drop, together with the removal of numerous splinters of bone, and other treatment, he was cured by the end of October, with anchylosis.

49. A case in *La Pitié*, under M. Michon. A ball had entered the right arm, immediately above the elbow-joint from behind, fracturing the ulna in its course downwards and outwards, and involving the joint. Enormous swelling followed with inflammation and suppuration; several splinters of bone were extracted; and now the case is nearly well, but still some œdematous swelling of the forearm remains. The patient can flex the arm in a very trifling degree, with the aid of his left hand.

50. A case in the *Hotel Dieu*, under M. Roux. A ball had entered the anterior surface of the left forearm, near its radical border, passing obliquely upwards, and escaping near the external part of the elbow-joint; the joint was safe, but extensive suppuration followed, extending the whole length of the trajet of the ball, which had to be split up with a bistoury. It terminated favorably, but with some stiffness during the act of pronation and supination.

51. A case in the *Hotel Dieu*, under M. Blandin. A ball had passed across the dorsal surfaces of the lower ends of the bones of the right forearm, fracturing them both. Very great swelling followed, with inflammation, and afterwards extensive suppuration, requiring numerous incisions to evacuate pus, and the case looked as if secondary amputation would have to be resorted to. A splint was applied along the anterior part of the forearm; greased charpie was used as a dressing to the wounds, and after the lapse of twelve weeks the bones had united. Now the case is nearly well, with little or no deformity.

52. A case in *La Pitié*, under M. Michon. A ball had entered the upper third of the inner side of the right forearm, over the ulna, where it had become lodged, not producing any fracture. Two several attempts were made to extract it, but it could not be found, and it was presumed it must have tumbled out before the patient was brought into the hospital. Secondary hemorrhage occurred eight days after, which was arrested by pressure. It again occurred on two occasions, requiring on the fifteenth day ligature of the brachial artery, which was performed at the lower third of the arm. Now the arm is nearly healed, and the patient can flex the forearm with perfect ease, but cannot supinate it.

53. A case in *St. Louis*, under M. Jobert, of severe wound of the left wrist-joint from a ball, in a female, which was followed by sloughing and suppuration, leaving a deep fissure extending almost through the carpus, and presenting the appearance as if inflicted by a sabre. The ulcerated surface was covered with numerous and large flabby granulations. Secondary amputation was resolved upon at the end of July, but the operation was delayed, and finally not performed; the wound has since become partially healed, and at this period the patient is in a very precarious state of health, suffering evidently from hectic fever.

54. A case in the *Hotel Dieu*, under M. Blandin, of compound fracture of the wrist and forearm, from a ball. Extensive suppuration followed, with sloughing of the integuments of the posterior part of the

forearm, leaving the muscles quite bare. A splint was applied along the palmar aspect of the arm; and, although the case did appear to be a very bad one, it has done very well; union of the fracture having occurred without any deformity, and the wounds are nearly healed.

55. A case in the *Clinique*, under M. Geraldis, where a ball had entered the anterior surface of the left forearm just above the wrist, and remaining lodged in the hand. Enormous swelling of the lower part of the forearm and hand ensued, which was followed by suppuration and the formation of an abscess in the palm, which was opened. The ball was not extracted until some weeks afterwards, and then the wounds began to heal, and the case speedily did well.

56. A case in the *Val de Grace*, under M. Baudens, of wound from a ball in the centre of the back of the left hand, not completely through. The patient did not know whether the ball had fallen out or was still lodged. The surgeon stated he had removed the fractured ends of three of the metacarpal bones, and on examining the wound on 22d July, he thought he could discover the ball. Chloroform was administered; the wound was dilated, and after probing it, an irregularly flattened ball was extracted, which, said the surgeon, must have struck some piece of iron before entering the hand. A catheter-shaped director was then introduced into the wound, and cut down upon from the palmar surface for upwards of an inch and a half, and a seton passed through the opening. Ice was then ordered locally. From that date the case progressed most favorably, and the hand was quite healed in the month of October.

57. A case in *St. Louis*, under M. Jobert. A ball had passed through the right hand, shattering the metacarpal bones of the fore and middle fingers. The wound resulting was frightful, a large hole existing through the hand. By the 15th August the wound was closed, and the hand was nearly well, but from the loss of substance, the index finger was much shorter, and the hand slightly deformed.

INFERIOR EXTREMITY.

58. A case in *St. Louis*, under M. Jobert. A ball had entered the middle of the right thigh from before, backwards, fracturing the femur, in its course outwards. The fracture has united, and the leg is two centimetres shorter than the left. No splinters were extracted; an abscess, formed at the inner part of the thigh, which has healed, and excepting very little suppuration from the anterior wound, the case is considered cured. The patient has lately been getting baths, and his health is perfectly good.

59. A case in *St. Antoine*, under M. Nélaton, where a ball had extensively wounded the right hip-joint, fracturing the femur, requiring primary amputation, which was performed by the surgeon above named, at the articulation. By the 4th August, the wound of the flaps (which was then about five inches long and one and three quarters wide) was doing as well as could be desired, and there was very little suppuration indeed. The patient has continued to progress favorably, excepting a period of relapse, brought on by the *friendly* visits of the police, from his being an insurgent, and now the cicatrix has nearly healed. A small

fistula exists, from which exude a few drops of pus. His general health is delicate, but he will shortly be removed to another hospital for change of air.

60. A case in the *Val de Grace,* under M. Baudens, in the person of General Demesne, who had his left thigh fractured from a ball, for which primary amputation was performed in the flap operation. He progressed favorably till the latter end of July, when he was so far well, the stump being healed, as to be allowed to descend into the gardens of the hospital for the benefit of fresh air. He became suddenly ill, and died within two or three days from purulent absorption.

61. A case in *St. Louis,* under M. Malgaigne, of comminuted fracture of the left thigh from a ball, in a boy. On the 8th August the case promised well, after very extensive suppuration and the removal of a number of fragments of the broken bone; the leg was considerably shorter than the other, and a fistula had formed in front, from which existed a discharge. A large amount of callus had been thrown out, which was not absorbed. M. Malgaigne pronounced a very favorable prognosis at that time, but afterwards the boy's health began to decline, the wound commenced suppurating anew, and the poor fellow succumbed by the end of September.

62. A case in *St. Louis,* also under M. Malgaigne, of fracture of the left thigh from a ball, the patient, a corporal of the 13th regiment of the line. Secondary amputation was performed on the 5th of August, but death followed on the 11th of the same month.

63. A case in the *Hotel Dieu,* under M. Boyer, of fracture of the left thigh at its inferior third, from a ball which had become lodged and afterwards extracted. By the 14th August the wound had nearly healed, and the case promised well—union apparently going on well. The patient shared the same fate as the preceding a few weeks afterwards.

64. A case in the *Val de Grace,* under M. Baudens, where a ball had entered the left thigh, fracturing the great trochanter and ilium, and remaining lodged. It was extracted, as well as some portions of the fractured bone, and the case has done well, with some suppuration at its commencement.

65. A case in the *Val de Grace,* also under M. Baudens, where a ball had struck the right femur, becoming flattened around it, and not producing any fracture. Very great suppuration followed, requiring numerous incisions to let out matter; a portion of the bone exfoliated, and the case was cured before the lapse of many weeks.

66. A case in *St. Louis,* under M. Jobert, of a severe wound in the groin of a boy, from a ball which had become lodged in the hip. Extensive suppuration followed, with irritative fever, which carried off the patient about the eighth week.

67. A case in the *Val de Grace,* under M. Baudens, of a wound at the inner side of the left thigh, from a ball. Secondary hemorrhage occurred on the 1st August, requiring ligature of the external iliac artery. No bad symptoms followed, but he remained very weak for upwards of a month and a half, and now he is nearly well.

68. A case in the *Hotel Dieu,* under M. Blandin, where a ball had

entered the inner side of the left thigh posteriorly, four inches above the knee, passing forwards and downwards, and escaping just above the external condyle of the femur. Synovitis followed on 26th July, which was combatted, and a cure speedily resulted.

69. A case in the *Beaujon*, under M. Robert, where a ball had entered the inner side of the right thigh, near the knee, wounding the inner hamstring muscles, and passing out posteriorly about four inches above the knee. The wounds quickly healed, with permanent contraction of the tendons, to be shortly remedied by sub-cutaneous section.

70. A case in the *Hotel Dieu*, under M. Roux, of a wound just above the right knee joint, from a ball, which was followed by inflammation and suppuration, and subsequently involving the joint itself. On the 19th July M. Roux amputated the man's thigh by the circular operation. He began to sink on the third day, and died on the ninth day of the operation.

71. A case in *St. Louis*, under M. Jobert, where the knee joint became subsequently involved from a wound immediately above. Amputation of the thigh was performed on the 4th August, under the influence of chloroform. Suppuration of the stump followed, which has continued most freely up to this time, the flaps having shown no disposition to unite even by granulation, and the patient is in a very precarious state.

72. A case in *St. Louis*, also under M. Jobert. A ball had entered the front of the knee joint, at the side of the patella, completely traversing its cavity, and escaping outwards posteriorly. This case was perfectly cured without anchylosis, or any bad consequence whatever.

73. A case in *St. Louis*, also under M. Jobert, very similar to that previously described, where a ball had entered the knee joint from behind, escaping lower down and nearer the edge of the patella than in the preceding case, and appearing, from the wound in front, as if it had passed through that bone. This patient was also cured without anchylosis. The leg was in a bent position when the ball entered the knee.

74. A case in *St. Louis*, also under M. Jobert; where a ball had entered the left knee joint, to the right of the inferior border of the patella, and remaining lodged within. Synovitis followed, with the formation of an abscess an inch and a half lower down than the wound, which permitted of the extraction of the ball out of the joint. The patient's wound is now perfectly healed, but he has anchylosis remaining.

75. A case in *St. Louis*, under M. Malgaigne, where a ball had entered the left knee joint in front, above the patella, and remaining lodged within it. M. M. stated that he was not aware whether there was any fracture here, and he did not like to explore the joint for the ball, as his doing so would produce more mischief than its presence. Synovitis followed, and a succession of abscesses formed around the joint, which ultimately carried off the patient in September.

76. A case in the *Beaujon*, under M. Robert. A ball had passed completely through the head of the tibia from before, backwards. In-

flammation of the knee joint supervened, followed afterwards by suppuration. The surgeon wished to amputate above the knee, but the patient would not submit to it, and died on the 6th August.

Autopsy.—The ball was found to have entered a little to one side of the anterior tuberosity of tibia, passing directly backwards and outwards; its trajet communicated with the knee joint. The cavity of the joint contained a quantity of greenish pus, and its structures were completely disorganized. The articulating surfaces of the tibia, femur, and patella, were entirely denuded of fibro-cartilage, and were rough and irregular. Pus extended upwards between the muscles of the thigh to within three inches of the hip joint.

77. A case in the *Hotel Dieu*, under M. Blandin, of compound fracture of the middle of the left leg, from a musket ball. Consecutive amputation was performed about the ninth week through the articulation of the knee. For some weeks afterward the patient appeared to be doing very well, the stump, although suppurating, healing kindly. Latterly he has not done so well, the stump having commenced to suppurate a good deal; he has been sent from a crowded ward to the Val de Grace, where he will receive the benefit of fresh air.

78. A case in the *Hotel Dieu*, under M. Roux, of comminuted fracture of the leg from a ball. Very extensive suppuration followed, with the formation of a large abscess above the knee joint at the lower third of the thigh, and which subsequently involved the joint itself. Amputation by the circular method was performed on the 14th August. The patient progressed very favorably, the stump being now healed, and his general health is good.

79. A case in *La Pitié*, under M. Michon. A ball had entered the middle of the left leg to the outer side of the tibia, passing backwards through the interosseous space, and escaping outwards posteriorly; erysipelas followed, which extended down to the foot, with the formation of a large abscess over its dorsum. At the same time this patient had received another wound on the right leg, a ball having entered the upper fourth of the tibia from left to right, forming a channel in the bone in its course outwards, and not producing any fracture. Both legs are now perfectly healed, but some tenderness exists over the cicatrices of the wounds.

80. A case in *La Pitié*, under M. Michon. A ball had entered in front of the posterior layer of the muscles of the calf, near the upper third of the fibula, fracturing that bone in its course, and escaping near the inferior fourth of the leg at its inner side. Most extensive suppuration followed, requiring large incisions to let out the matter, and the case looked very bad. The wounds, however, are now healed; the fracture has perfectly united, and some tenderness exists over the superior wound, from which numerous small splinters of bone have been extracted.

81. A case in the *Val de Grace*, under M. Beaudens. A ball had entered above the left ankle, fracturing the tibia, passing through the bones of the tarsus, and escaping at the inner margin of the foot. Inflammation and suppuration followed. Cold applications were used, and the leg was placed in a wooden case with three slides, and ultimately the patient was cured, without anchylosis.

82. A case in *St. Louis*, under M. Malgaigne. A ball had completely passed through the right ankle from right to left. A tumor of an encephaloid character developed itself over the external wound, which was extirpated with the knife on 31st July, the patient being under the influence of chloroform. His wounds are now nearly healed and his general health is good.

New Variety of Luxation of the Humerus.—By M. Malgaigne.—A man, æt. 63, presented himself to M. Malgaigne, 31st of October, with a luxation of the humerus, which had occurred on the 16th of the preceding August; and the subject being a thin one, he was enabled to convince himself that it was a variety of the accident of which he knew of no other example. The man had been pitched to a distance from the top of a high wagon to the ground, and had fallen on his shoulder, the arm being at the same time compressed against the trunk. A careful examination showed that the head of the bone had been carried upwards and forwards above the acromio-coracoid ligament and the coracoid process, which was so concealed by the head of the bone as not to be felt. The exact seat of the head was on the acromio-coracoid ligament, anteriorly and superiorly to the coracoid process; so that it might be termed the *supra-coracoid* luxation of the humerus. It was irreducible at so remote a period.—*Brit. & For. Med.-Chir. Rev.*, from *Rev. Méd. Chir.*

Ligature of the External Iliac Artery.—T. W. Nunn, Esq., has communicated to the *Lancet* (May 5) a case of femoral aneurism about the size of half a large orange, in a man 43 years of age. A ligature was applied to the external iliac, while the patient was under the influence of chloroform, Jan. 26th. The ligature came away on the 22d day (23d Feb.), and on the 23d March the patient resumed his employment. The temperature of the limb was well maintained throughout. On the evening after the operation, the thermometer indicated in the ham of the ligatured side a heat of 95°; while in the ham of the sound side, and in the axilla, a temperature of 92° only was attained. Indeed, many days after the operation, the right limb appeared to the hand to be the warmer of the two, though the thermometer did not verify the impression. I consider the chloroform to have been the cause of the troublesome cough mentioned, but fortunately produced no serious harm.—*Am. Jour. Med. Sci.*

Staphyloraphy.—M. Gerdy exhibited to the National Academy of Medicine a lad, fifteen years of age, on whom he had performed the operation of staphyloraphy, and whose pronunciation was entirely reestablished. The cleft-palate in this patient, he stated, was so large, that the thumb could not cover the opening; there was no separation of the bone. Pronunciation was painful, and very imperfect. The fault of pronunciation was principally on the consonants, especially on the c, s, j, ch, n, b; in fact, the whole of the consonants were very much altered from the air escaping by the nostrils. The sounds were so very confused, that the person could hardly be understood. At present, the patient is cured, with the exception of a very slight embarrassment, the results of previous habits of speaking: at the same time, the deglutition of fluid, formerly accompanied with difficulty, is now quite easy. M. Gerdy made use of the ordinary process of refreshing the edges; but in place of the interrupted suture, which he always thought bad, from its forming a ring, the pressure of which brought on sloughing of the part, he preferred the quilled suture, which forms only a half circle, and does not strangulate the approximated portions. Instead of quills, he used two small pieces of liquorice root, moistened in warm water; he removed the first thread on the 6th day, and the rest on the 7th. M. Gerdy attributed the success principally to the employment of the quilled suture, which he considers preferable to all others for this purpose.—*Monthly Retrospect*, from *Gaz. des Hôpitaux*, Oct.

MIDWIFERY.

On the Treatment of Inversion of the Uterus. By PROF. MURPHY. —The Uterus should be immediately replaced before the contraction of the uterine tissue becomes permanent, and may prevent it. Denman found it impossible to restore the uterus when four hours elapsed from the accident. If the inversion be irreducible, its treatment belongs to a different subject from that we are at present discussing. The mode of replacing it is somewhat similar to prolapsed uterus. The tumor is firmly compressed with both hands, and the centre of the fundus pushed upwards towards the pelvis by the fingers, forming a cone: when the reverted portion arrives within the pelvis, the difficulty of advancing it increases, because the uterus is so much folded on itself; but when the fundus passes this point, it flies back to its natural position, just like an Indian rubber bottle. Much of your success will depend upon your promptitude: the uterus should be returned quickly; but if there be much delay or violence, it may become impossible to do so. Recollect, therefore, the opposition which the perinæum may give you: it is necessary to press it back strongly while attempting the reduction, otherwise you might fancy the inversion was irreducible. When the placenta is attached to the uterus, it has become a disputed question whether it should be removed first or not. The bulk of the placenta is undoubtedly an impediment to the restoration of the uterus, but the danger to apprehend from its removal is hemorrhage. Dr. Lever's case is a convincing proof of the risk of such an accident. For this reason Mr. Newnham and many experienced practitioners, strongly urge the importance of leaving the placenta undisturbed until the uterus is replaced. On the other hand, the experience of Dr. Radford and others has satisfied them that no hemorrhage follows the separation. I believe, as has been stated, that this depends upon the degree of contractility in the uterus at the time of accident. It would be a safer plan not to touch the placenta in the first instance if it were possible to return it with the uterus; but if this should prove difficult, some information of the condition of the uterus may be obtained by a careful examination of the tumor itself. It is generally covered with blood: let this be wiped off carefully, and observe the manner in which the vessels on the surface pour out their blood: if slowly and only guttatim, I think the placenta may be removed at once with perfect safety, and if so it is certainly much more convenient; but if, on the contrary, the surface is again rapidly covered with blood, the separation of the placenta would very likely increase the hemorrhage to a dangerous, perhaps a fatal extent. When the uterus is restored to its situation, the hand should not be withdrawn suddenly, lest the fundus again descend. Firm pressure should be applied on the fundus externally through the abdomen, and when a uniform contraction of the uterus is secured, the hand will be expelled as it is withdrawn: a bandage should then be carefully applied, and the patient kept perfectly at rest for some time. A dose of ergot of rye would also be advisable, in order to secure the tonic contraction of the uterus more efficiently.—*Lond. Med. Gaz.*

Congestion and Erosion of the Cervix Uteri. By F. Churchill, M. D.—Dr. Churchill, in a communication to the Dublin Obstetrical Society, stated, that after the elaborate work of Dr. Bennett, and the excellent paper of Dr. Evory Kennedy, it would be superfluous for him to enter into a description of congestion and erosion of the cervix uteri. He quite agreed with those writers as to its being much more frequent than was heretofore believed, and, also, that it is neither easily detected nor easily cured without the use of the speculum. At the same time, he thinks it neither necessary nor becoming to propose an examination with this instrument in every case of vaginal discharge; a degree of delicacy and discrimination should always be exercised. This is particularly necessary with nervous women. The author has known irremediable mischief result from neglecting this consideration. Again, if it be possible to avoid it, he should consider it wrong to propose an internal examination to an unmarried female. In accordance with these views, whenever he is consulted for a whitish or yellowish vaginal discharge, or for leucorrhœa, Dr. Churchill always makes an attempt to cure it by general means, such as blisters to the sacrum, balsam of copaiba, ergot of rye, &c., with local baths of cold water or astringents. Many cases are thus cured; but if he fail, he thinks it fair to assume that there is either congestion or erosion, requiring other local treatment, and in the majority of cases he has found this to be so. The usual application is nitrate of silver, acid nitrate of mercury, nitric acid, chloride of zinc, all of which he has repeatedly tried with great benefit; but it occurred to him (Dr. Churchill) that caustic iodine would probably answer better than any of these singly, inasmuch as it possesses sufficiently strong caustic properties, and, in addition, would be likely to act beneficially in reducing the enlarged cervix. The preparation Dr. Churchill employs is of the following strength: ℞—Iodinii ʒj, potassæ hydriodatis ʒij, aquæ destillatæ ʒij, spiritus vini ʒij, and, after four or five years' trial, he can truly say that he has found it the best application for congestion, erosion, or superficial ulceration, of all that he has tried. Dr. Churchill usually commences with a single application of nitric acid, or the acid nitrate of mercury, and then, after a few days, he paints the entire cervix with the iodine. This must be repeated once or twice a week, but not oftener; for whenever he has attempted its more frequent use, he has found the uterine irritation rather to increase than diminish; and this will probably explain why these trifling complaints take so long a time to cure. Dr. Churchill had seldom succeeded in less than two months if the congestion was considerable, and many cases have required a much longer time. The application occasions no pain at all, unless the orifice of the vagina should be touched by the caustic, which may happen if it be applied too profusely. In one case the patient complained of a metallic taste in her mouth, in five minutes or less after each operation. After one or two applications, the cervix will generally be found to have diminished in volume, to have lost its tenderness, and the eroded surface to have lessened in extent, and to have assumed a more healthy appearance. Dr. Churchill strongly recommends that the application of the iodine should not cease abruptly, but first be diminished in frequency, then left off, and resumed if, as is very common, any of the symptoms return.—*Med. Times.*

Expulsion of a Bag of Waters, before the Rupture of the Membranes.—Dr. Alexander Wood narrated to the Edinburgh Obstetric Society (Feb. 14, 1849,) a case which had lately occurred in his practice. On the 8th of February he received a hasty summons to attend a patient whose accouchement was not expected for a month, but who was suffering from a severe attack of pneumonia. Labor pains had lasted about two hours before he saw her. It was her fifth pregnancy. On making an examination, he discovered a membranous sac protruding from between the labia, which he thought consisted of the membranes. On pressing this up, however, during the interval between the pains, he could not reach the head on account of the interposition of fluid, which could not be removed by pressure. The next pain expelled this membranous body, when it was found to present a pyriform appearance, ending in a long neck, the extremity of which could not be reached by the finger. A double ligature was applied to the neck, which, being severed between the ligatures, the sac was removed entire, with the fluid which it contained.

In size, it was capable of holding about six ounces of fluid. It burst in handling it, and discharged a clear, limpid fluid. The membranes were found at the next examination presenting as usual, and the case terminated naturally about an hour after the expulsion of the sac.

Both mother and child did well, although the latter was small and weakly.—*Monthly Journal,* June, 1849.

Puerperal Tetanus.—According to Dr. Pirre-Aubinais, there exists a traumatic puerperal affection distinct from what is ordinarily called puerperal eclampsia. It is characterized by clenching of the jaws (trismus,) difficulty or utter incapability of swallowing, contraction or convulsive tension of certain of the muscles, and sometimes of all the voluntary muscles together. This rare affection it is proposed to call puerperal tetanus. It comes on spontaneously, generally soon after the supervention of the milk flow, and in women who ought not to nurse. M. Aubinais has observed it only in women in the country, and where the lochiæ, as well as the cutaneous transpiration, have been arrested by the sudden influence of cold and damps—as by plunging the feet into cold water, walking barefoot on damp ground, or swallowing at once a large quantity of cold water.

Of three cases which M. Aubinais has seen, the affection proved fatal in one. The treatment resorted to, consisted in the use of antiphlogistic remedies and narcotics. In one of the cases, where the woman appeared to be under the influence of the poison of ague, quinine was exhibited with advantage.—*Month. Retrospect*, June, 1849, from *Journ. de la Sociéte de Médecine de la Loire Inferieur.*

Twins born at an interval of twenty-one days.—A woman, 35 years of age, was confined on the night of the 30th of March, 1848. The placenta came away without difficulty. The size of the abdomen remained very considerable; the lochia did not flow, and, nevertheless, the surgeon did not conceive the possibility of another child.

Dr. Prival, of Bedarrieux, was called in, and at once ascertained the presence of a second child. The one already born was full-sized, healthy, and took the breast with avidity. The mother would not remain in bed; she arose and occupied herself with her usual household cares. Twenty-one days after the birth of the first child, labor-pains again came on, and another child was born, as strong and healthy as the first.—*Med. Times,* from *Union Médicale.*

OBITUARY.

It is with regret we announce the death of Dr. Robert J. N. Streeten, the editor of the Provincial Medical and Surgical Journal. We take the following notice of this event from the last number of the Journal.

Dr. Streeten had been suffering for some months from a bronchial affection, the consequence of an attack of influenza which seized him in the early part of the month of January. This left him in a very weak state of health, for which he was induced to try the air of Torquay; here, however, a new train of symptoms supervened, implicating the alimentary canal. For some days he was distressed with continual vomiting, which seemed to relieve the bronchial symptoms, but never entirely left him, and he gradually lost flesh and strength up to the day of his decease, which took place on Thursday, the 10th of May last.—*Med. Gaz.*

PART FOURTH.

EDITORIAL

AND

AMERICAN MEDICAL RETROSPECT.

CHOLERA IN NEW-YORK.—We are again compelled to say a few words on this subject. Since the publication of our last number (at which time it was on the decided increase) the epidemic has raged to no small extent. The whole number of deaths from Cholera up to Aug. 25th, is 4677. By reference to the City Inspector's report, it appears that it arrived at its climax some time during the week ending July 21st, at which date the report of deaths from Cholera Asphyxia was 714. The week previous it was 484, and the week following 689. The gross mortality bill for the week ending July 21st, was 1409. Of this number there were, as just stated, 714 deaths from Cholera Asphyxia ; 132 from Cholera Infantum ; 34 from Cholera Morbus ; 61 from Diarrhœa ; and 71 from Dysentery. The whole amount of deaths from diseases of bowels, 1017. Now, if the aggregate amount, from the above named and similar diseases be compared with the gross mortality bill for the month of July, 1848, which was 1497, it will be seen that from these diseases alone, we have a mortality nearly of over two-thirds the whole mortality bill for the above named month. The mortality from diseases of the bowels has been and still is alarmingly great ; almost equalling the general mortality bills for the corresponding weeks of last year. Cholera, however, is now fast on the wane, and should it continue to decrease for a short time as fast as it has for a few days past, it will, by the time our most distant subscribers shall have received their numbers, have become nearly if not quite extinct. Not so, however, we fear, with the other diseases mentioned in this notice—dysentery especially. This disease, in many parts of the city, has been and still is remarkably prevalent—particularly so in those portions where cholera has raged most extensively, and among those subjects (as is always the case) who pay but little or *no* attention to hygienic or sanatory regulations. For the purpose of relieving the severe tenesmus generally present in this disease, we have seen considerable benefit arise from the solution of camphor and chloroform, in five or six drop doses.

CAMPHOR AND CHLOROFORM MIXTURE.—In relation to the use of this new combination we have received the following from Dr. E. Harris, of this city. In speaking of its use in several diseases, he says, that "during the past month I have with great satisfaction, administered this preparation in several cases of obstinate vomitings, and also as a palliative to the cramps and vomiting attending cholera.

"Recently, in a case of violent hysteria ,I administered it with happy effect. I am now making frequent use of it as a palliative to the tormina of dysentery ; exhibiting it in connexion with oleum ricini, opium, ipecac., hyoscyamus, &c., or alone. In a few cases I have used it endermically, pouring a few drachms upon the hypogastrium, and *instantly* covering it with a flannel wrung in hot water, and enveloping the whole trunk with oil cloth. Both in *this way* and in connection with an *epithem of aq. ammonia*, I have used it with happy effect.

"I would not, however, from my own limited experience in the use of this preparation of camphor, speak with great confidence. Its therapeutic value remains to be tested. It certainly is an elegant preparation; and will prove highly serviceable as a prompt and efficient stimulant and anti-spasmodic." For the formula of this mixture see Vol 2, New Series, of this Journal, page 140.

COMMUNICATION.—*Cholera at Quarantine*—It gives us much pleasure to insert the following communication, containing a resumė of the progress and treatment of cholera at the Quarantine for the last four months. Our thanks, as well as those of our readers, are due to Dr. Sterling for the devotion and lively interest he evinces in behalf of medical knowledge and literature. By the way, we learn that Dr. S. has just completed the translation of Renaud's History of Medicine, a work replete with erudition, and one the speedy publication of which we hope to see accomplished.—ED. *N. Y. Jour. Med.*

Marine Hospital, Quarantine, S. I., N. Y., Aug. 15, 1849.

DEAR SIR,—Since the cholera renewed its attack in April, the number of deaths at the quarantine hospitals has been as follows, viz. :—

In April, 18; in May, 26; in June, 19; in July, 37; in Aug., (to 15th,) 15. Total, 115.

In consequence of many of its subjects having been admitted with other diseases, the number of cholera cases which have occurred here since the first of April, cannot be accurately ascertained; the number, however, brought in from ships, since said date, has been 41, and these not previously to the 17th of May.

In the wards of the lower hospital, under my charge, there have been 32 cases from the 1st of June (at which time the cholera revisited these wards) to the 15th of August, of which number 12 have died. These deaths are included in the above *total.*

Of these cases, 16 were laboring under typhus, or apparently beginning to convalesce therefrom, when attacked by cholera; eight were brought from the city or the sea-board into the hospital with the disease upon them; in two, the previous disease was dysentery; in one, simple fever; one, ptyalism; one, neuralgia; one, debility; one, pulmonary abscess; and one, pneumonia.

Premonitory diarrhœa did not lapse into the cholera; its effects being carefully guarded against. Typhus patients were most obnoxious to this disease, especially at that stage when, the tongue becoming moist, a speedy convalescence was anticipated. This fact was so manifest, that great caution was observed in the administration of such febrifuges as had a tendency to excite catharsis or nausea, and the slightest indication of a loose state of the bowels was promptly antagonized.

Viewing, of late, the algid state of the cholera as bearing some resemblance to those cases of congestive fever, noticed by Sydenham, Armstrong, and other physicians of merit, in which the surface is remarkably cool, the face pale or livid, and the vital powers so completely oppressed, or prostrated, that nature cannot rally, I altered my mode of treatment, and resorted to stimulation with the hope of inciting speedy reäction. For this purpose, I administered, in the collapsed stage, large draughts of hot milk mixed with brandy, applied sinapisms to the wrists, ankles, and abdomen, bottles of hot water to the feet, and enveloped the patient in numerous folds of blankets, expecting thereby to produce a derivation to the surface, a profuse warm perspiration, and thus remove the oppression of the vital organs. In some few cases these results speedily followed, ushering in a favorable crisis; in others the coldness, vomiting and purging were protracted to a longer period, and, again, in others no decided relief was obtained; in one only did cerebral congestion ensue in consequence of this remedy, and this patient survived ten days the onset of the malady.

The quantity of brandy administered did not exceed eight ounces the first twenty-four hours; on the second day it was diminished, and on the third the patients could scarcely be persuaded to drink it; indeed, it was often previously countermanded, for it was contra-indicated as soon as reäction was established.

Cold water, or iced water was not prohibited; on the contrary, it was liberally supplied whenever the patient craved it, and often with the result of allaying the vomiting and ameliorating the intolerable burning sensation in the precordial region.

We cannot explain how two articles apparently incompatible often harmonize with each other, yet hot milk and brandy, alternated with cold water, are not more incompatible than alcoholic stimuli and venesection, which latter means skilful physicians frequently resort to, almost simultaneously, and with the happiest effects, in exciting reäction.

Certain remedies, as adjuvants, were also prescribed *pro re nata ;* for the vomiting, spirits of camphor, carminatives, and kreosote ; and if the matters ejected were green, yellow, or glassy, a large dose of calomel to reverse the action of the digestive organs; for the purging, cretaceous mixture with tinctures of kino and catechu, or, what more speedily and effectually arrested it, about two ounces of starch injection with twenty drops of laudanum.

In general, the narcotic effects of opium and morphine were scrupulously avoided ; for such effects were highly pernicious ; and even when these anodynes merely removed pain and allayed irritability of the stomach and bowels, the tranquillity and calm which supervened boded no good ; healthy reäction was thereby suspended or arrested, death was not the less certain, often more speedy, and no favorable crisis could be predicted without a decided restoration and reïnvigoration of the natural functions.

Finally, I would observe, that patients lying in the same room with one laboring under the cholera were very susceptible of this disease. It may be excited by panic, contagion, or by atmospheric influence ; whichever it be, I presume it is a matter of indifference to the recipient, after he gets it, from what source obtained. I have, however, seen patients seized with it while lying in a state in which they were altogether insusceptible of panic ; and if the pernicious condition of the atmosphere be the sole exciting cause, we would not see so much of its peripatetic excursiveness. I cannot, therefore, help believing that something must be attributed to contagion, and be this something ever so little, prudence, if not humanity, demands the separation of cholera patients from those afflicted with other dieases, and especially from the subjects of typhus.

Should this paper be accepted, you will probably hear from me once more on this subject, especially as the cholera seems to have a predilection for our locality, and may prolong its visit at quarantine even after atmospheric influence has departed.

Yours, very respectfully,
Jno. W. Sterling, M. D.

To S. S. Purple, M. D., etc., Editor N. Y. Jour. Med., etc.

Communication.—*Fracture of Spine—Tetanus—Spasms Affecting the Paralyzed Muscles.* By F. D. Lente, M. D., Acting Resident Surgeon of the New-York Hospital.—William Brown, æt. 35, Seaman, was admitted to the 2d Surgical Division of the New-York Hospital, July 22d, 1849. A short time previous to admission, patient fell through the hatchway of the ship Columbus, into the hold, a distance of about thirty feet, striking upon his back.

Upon admission, there was found to be total paralysis of sensation and motion of the lower extremities, also paralysis of the bladder, and some pain on pressure over the 12th dorsal vertebræ. Patient was suffering from the shock consequent upon the injury. Is of vigorous constitution and in full health.

July 23d. There is considerable tumefaction and pain over the seat of injury to-day. Ordered cups. Twelve ounces of blood were taken with relief to patient. The urine is dribbling from the urethra, but the bladder is distended. Introduced the catheter, and drew off two pints of urine. July 24th. Patient had a severe chill to-day, followed by hot skin, frequent pulse, and headache. Tongue furred; bowels confined. H. Mercurial Cathartic. ℞ Spt. Nit. Dulc. ℥i, Aq. Camph. ℥iij, Cap. Coch. Mag. q. 3 h. July 25th. Medicine acted with the aid of an enema. Patient feels comparatively comfortable to-day. Urine is becoming turbid, is alkaline, and has a fœtid, ammoniacal odor. Sleeps well at night with a full anodyne. July 30. Patient gradually sinking. Pulse more feeble, tongue becoming dry and brown. Suffers but little, except from inability to change his position in bed.

Notwithstanding the care taken to prevent pressure upon the prominent points of the body, bed sores are forming over the greater trochanters, which however, give the patient no inconvenience. Appetite fair. Has nourishing diet, wine-whey, etc. Takes the mixture first ordered, also pil. opii et camph. gr. ½ a gr. ij. q. 4 h. Urine exceedingly turbid and offensive. Passes it unconsciously from the bladder.

August 10th. Continues to sink gradually. Complains of no pain. Bowels have been opened every two or three days by enemata. The slough over the left trochanter major is extending in circumference and depth; that over the right has separated, and the surface of the ulcer is granulating. August 16th. Patient's condition has continued about the same since last date. To-day he had a chill which lasted about an hour. In the afternoon he complained of slight trismus, and of some stiffness and pain about the sterno-cleido-mastoid muscles, and the muscles of the back of neck, also of some difficulty of deglutition. August 17th. The tetanic symptoms, noticed yesterday, have increased in severity. There is now almost perfect trismus, great difficulty in swallowing, and slight opisthotonos. The muscles of the neck are rigid and painful. H. Tinct. Opii ʒss. q. 3 h.

P. M. There is now well marked opisthotonos, the head being forcibly extended, and patient unable to flex it upon the trunk. There are now also observed slight clonic spasms of the muscles of the paralyzed extremities, most marked in the extensor muscles of the toes, and the flexors of the legs. There is also frothing at the mouth. Tetanic countenance well marked. Can scarcely swallow a teaspoonful of liquid. August 18th. Patient very low; pulse frequent and small, surface bathed in a cold sweat, lips livid; spasms very violent, jaws firmly locked. Spasms of the muscles of the lower extremities well marked. 10 o'clock, A. M., died.

Autopsy.—Five hours after death. Found a comminuted fracture of the body of the 12th dorsal vertebra, with some displacement of the fragments backwards upon the spinal cord; the laminæ were also fractured. The bladder was found to be thickened, somewhat distended, and its mucous coat highly inflamed, and coated with a thin layer of pus. There was an abscess within the coats of the bladder, which, when cut into, discharged about half an ounce of purulent matter. The ureters and kidneys also in a high state of inflammation.

COMMUNICATION.—*Case of Fœtal Malformation.* By SAMUEL TYLER, M. D. 1 o'clock, P. M. Was called to see a female in her first labor; the midwife who was with her told me there was a placental presentation, and that she had sent for me for the purpose of turning and hastening delivery. I made an examination "per vaginum," and found a soft mass presenting and to the touch resembling placenta. I carried my fingers and hand beyond the mass for the purpose aforesaid, but immediately a violent pain expelled the whole contents of the uterus, which were as follows:

A fœtus, about eight months advanced, presenting these peculiarities: the head, shoulders and arms, perfect; the thoracic cavity containing the lungs and heart, the latter of which was more than double the usual size. The abdominal cavity entirely empty; the liver, stomach, bowels, spleen, kidneys and bladder, being developed exteriorly, and only connected with the abdominal cavity by a species of cord or ligamentous connexion; it was the presentation of this mass that caused the midwife and myself to think it was placenta. In addition to the above peculiarities there was one leg, the right, about two inches longer than usual, and the left leg only two inches in length, and protruding backwards, owing also to a slight curvature of the spine, the anterior pelvic and pubic regions, with the male sexual organs attached, were thrown entirely behind. This specimen which I have preserved is certainly a very singular freak of nature.

Fredericks, Md., July 28, 1849.

ANATOMY AND PHYSIOLOGY.

ON SECRETION.—By SAMUEL GEORGE MORTON, M. D.—The function of secretion, like that of digestion and nutrition, is a varied form of cell-growth; but while in *nutrition* every tissue separates from the blood and appropriates to itself the materials of its own development, *secretion* elaborates a peculiar fluid for a special office in the animal economy. Such, at least, is the case with respect to the greater part of the secretions—the bile, the gastric and pancreatic fluids, the saliva, milk and tears, together with the product of the mucous and serous membrane. Another form of secretion is that which separates the refuse elements of the blood in order that they may be thrown out of the system altogether; and the function, though of a strictly secretory nature, is designated by the more definite term of excretion.

Secretion in its more restricted sense, consists in the action of cells which deposit their products on a free surface, communicating more or less directly with an external outlet. The organs of this function are chiefly the *glands.* The liver is an example of this highest type of glandular organization. Its multitudinous follicles empty themselves into the ducts of which they form the internal parietes, and these ducts finally coalesce into a single canal. Such also is the construction of the pancreas, the salivary glands and some others. The other extreme or the more simple glandular organism is seen in the synovial capsules and serous membranes, which are covered by epithelial cells of the secretory class. But in the mucous membranes we find an intermediate structure, consisting of an *inversion* of the surface at multitudinous points, each one of which is a follicle lined by epithelial cells. A follicle therefore, is a perfect but epitomized gland, hence the axiom in the present state of physiological science,—that in all secretory organs, the cells covering the membranous surfaces and lining the follicles and tubes, constitute the real and only secretory apparatus. (*Illustrated Human Anatomy.*)

RESUMÉ OF SOME EXPERIMENTS TO DETERMINE THE QUANTITY OF BLOOD IN THE BODY.—By PROF. JAMES BLAKE. (*Med. Exam.*)—The experiments were performed by injecting a weighed quantity of sulphate of alumina into the veins, and analyzing a weighed portion of the blood. As the salt had time to be well mixed with the blood before the animal died, such an analysis would enable us to determine the whole quantity of blood with which the salt had been mixed. The only error which might arise would be from a portion of the salt having combined with some of the tissues, or having been rapidly excreted, and this would only affect the result in one direction, viz., in furnishing a greater quantity of blood than really exists.

The results of my experiments would lead to the conclusion that no such source of error exists, as I find by this method that the weight of blood in the body of a dog does not amount to more than between one-eighth or one-ninth part of the weight of the animal, an estimate much lower than that which is generally received as the quantity of blood in an animal. That this, however, is nearer the truth, is probable, from the consideration of the velocity of the circulation and the capacity of the heart, as on the generally received opinion on the quantity of the blood, it is difficult to imagine how it can circulate so rapidly.

PATHOLOGY AND PRACTICAL MEDICINE.

CHRONIC GASTRITIS AND CHRONIC DYSENTERY.—*Treatment*—By H. HARTSHORNE, M. D.—In patients affected with indigestion accompanied by epigastric tenderness, very positive advantage was derived under Dr. Wood's treatment from the use of the argent. nitrat.,—beginning with gr. ¼ and increasing to gr. ½, thrice daily, with half the quantity, or less, of opium. In some instances vomiting, before frequent, ceased on the administration of this combination in pill. No other remedy seemed so particularly adapted to the chronic inflammation of the primæ viæ, which constitutes one form of dyspepsia.

One case of chronic dysentery of three months' standing, was relieved entirely in a few days by the use, twice daily, of an injection of four ounces of water, containing eight grains of zinci sulphas, with forty drops of laudanum.

One much more recent, originating in the house, but resisting the ordinary astringent and opiate preparations, was cured by a single enema containing a scruple of the sulphate, with starch. This last application, however, was somewhat painful, from the strength of the solution.

MICROSCOPIC APPEARANCES OF THE DISCHARGES AND MUSCULAR FIBRES OF A PATIENT WHO DIED OF EPIDEMIC CHOLERA.—By W. J. BURNETT, M. D. Dr. Burnett, by request, recently read a paper before the Boston Society for Medical Improvement, on this subject. It is published in the American Journal of Medical Sciences, for July.

On Sunday, June 3d, a man at the northern part of the city was attacked with the premonitory symptoms of cholera. The case ran a rapid course, and in a few hours he was in a state of collapse; and on the next morning, at ten o'clock, he died.

A post-mortem examination of his body was made, on the afternoon of the same day, at half past three o'clock. At this autopsy I secured a quantity of the "rice-water" liquid found in his intestines; also a portion of one of the pectoral muscles. These specimens I submitted, on the morning of the 5th, to careful and repeated microscopical examinations, and obtained the following results.

1st. "*Rice Water*" *Liquid.*—This was found loaded with epithelium of both varieties, viz., the *cylinder* epithelium, and the *tesselate* or pavement epithelium. These cells were floating about not only singly, but in large flakes of one-thirtieth to one-tenth of an inch in size, and attached uninjured to the "basement membrane" from which they grow; so that it would appear that this "basement membrane" had been stripped off, bearing the cells upon it. The cloudiness and opacity of this liquid seemed entirely due to the presence of immense quantities of these epithelial cells, since no mucous corpuscles or any other corpuscles whatever, as well as no shreds of lymph, could be detected from repeated examinations.

It is well known that the *tesselated* or pavement epithelium covers the mucous membrane of the mouth and œsophagus, while the mucous membrane of the remaining portion of the alimentary canal is covered by the cylinder epithelium. Therefore the presence of both varieties of this epithelium in these discharges would show that they came from the surface of the *whole* of the alimentary canal, instead of from its intestinal portion only.

Loitering here and there, in the field of the microscope, was an occasional crystal of the *oxalate of lime.*

For a long time, I could perceive nothing in this liquid but the two substances just mentioned, viz., the epithelium and the crystal of oxalate of lime. But, after increasing the power of the instrument, a third element appeared, and was then so apparent that I greatly wondered

I had not before seen it. This was the presence of thousands of thousands of *animalculæ* swarming and sporting about in every direction. For a time, I thought that this must be a mere accident, but very many subsequent examinations afforded the same results; and that I might not be the only person to vouch for their presence here, I showed them to my friend, Dr. D. H. Storer, of this city, who made the remark, that he distinctly saw them "writhing about." By a power of five hundred linear diameters, they could clearly be seen, some as *linear* moving bodies, others having a more globular character —the former seeming to be only a linear aggregation of the latter. They seemed, therefore, to be *vibriones*, and by measurement the single animals were from $\frac{1}{16000}$ to $\frac{1}{20.000}$, and the compound chain-like animals were from $\frac{1}{8000}$ to $\frac{1}{4000}$ of an inch in diameter. I state these facts in this precise manner, since some, it is probable, may think that all this is simply the *molecular motion* so often observed in the secretions. But that they were distinct animals having voluntary motion, I have no doubt, since Dr. Storer, as well as myself, saw them moving in a serpentine manner over the field.

2d. *Muscular Tissue.*—Not thinking of seeing any of these appearances, I examined a small bit of muscle, with reference to ascertaining, if possible, on account of the involuntary muscular contractions during life, the proximity of the *striæ* of their *fibrillæ.* But my perception of these relations was not very acute, from my astonishment to find in this tissue these same animalculæ in great numbers. A little distilled water, used to soften the tissue, brought out great numbers of them into it, so that they were seen, as in the intestinal liquid, sporting about hither and thither. In these examinations, all possible care and precaution were used, to prevent the introduction of any foreign bodies into the field of observation.

The great fact to be borne in mind, as the result of these examinations, is that the same *animalculæ* were found in great numbers both in the intestinal liquid and in the muscular fibre. And the fact of their being in the muscular fibre would argue, I think, decidedly against the supposition of their mere accidental presence in the liquid of the alimentary canal.

I much regret that, before these observations were made known, I should not have had the advantage of more specimens from patients who have since died here of this disease. And although it may seem premature that these results from a *single* case should thus be made known, yet they are exposed as simple facts, and upon future examinations I shall rely for the proof, either, on the one hand, that these *animalculæ* were simply *accidental* to *this* case alone; or, on the other hand, that their presence is constant in this disease; and if the latter is found to be correct, as would seem thus to have been foreshadowed, there will then be sufficient time to attempt to trace their *causative* relation with this dire disease now among us.

Furthermore, should future investigations show that these *vibriones* are equally common in the tissues and secretions of patients dying of other diseases—in other words, that their presence in this disease is not specific—yet the above note will not, perhaps, be considered without value—since it may serve to call the attention of better observers than myself to this interesting subject.—*Amer. Jour of Med. Sci.*

Nurses' Sore Mouth.—By J. Yale Ware, M. D. This is a very troublesome complaint of mothers, and one that is rapidly increasing in this section. An infallible remedy, when it does not purge the bowels, is Griffitt's Myrrh Mixture, in table-spoonful doses three times a day, internally, and a solution of nitrate of silver, gr. viii to ℥iv of pure water, for a gargle; and if the soreness extends towards the stomach, swallow a tea-spoonful three times a day. Of course, if need be, the stomach should be cleansed by a light emetic or gentle laxative, antecedent to the above treatment. I believe, if perseveringly used in season, very few mothers need wean their children from this cause; indeed, I have never known it fail to relieve the mouth.—*Amer. Jour. Med. Sci.*

Treatment of Dysentery by injections of Nitrate of Silver and Creosote.—By Prof. Flint.—The nitrate of silver, as we know, in analogous instances of inflamed mucous tissue, for example, in conjunctivitis, pharyngitis, etc., exerts a surprising effect in diminishing and arresting inflammatory action. It has been employed, to some extent, in dysentery, and is recommended by some practical writers, but, so far as we know, is by no means in common use. In one case we resorted to a solution of the crystals of the nitrate of silver, ten grains to the ounce, with marked benefit. The tenesmus and frequent dejections were relieved in a striking degree, and the discharge of mucus and blood was much diminished. To secure the good effects of this application, it is desirable that the injection be made to pass up the intestine as high as practible, in order to bring it into contact with a larger portion of the inflamed surface. We found the best instrument at hand to be a female bone syringe, with a long pipe, terminating by a perforated bulbous extremity. Perhaps a solution of greater strength might be even more serviceable. The patient was a child four years of age. The application occasioned, apparently, little or no pain—not more than the ordinary enemas of starch and laudanum. Another remedy employed in the same case was a creosote mixture. We have used this remedy in two cases; in one of chronic dysentery of long standing, the effect was good, but not extraordinary. In the case recently under treatment, we first employed it in connection with the tincture of opium, and found that the enemas were retained, when with the laudanum alone, they were immediately expelled. We employed, at first, a mixture for each injection (℥ss) containing two minims of creosote. Subsequently we employed the creosote alone, increasing the quantity to four minims, and the good effects were striking. The relief of the local symptoms was quite as great as when the opium was given in combination, the disadvantages of the latter being avoided. We feel confident that this will prove a valuable remedy in the dysentery, and we, therefore, are solicitous that our readers should make trial of it. We do not, of course, suggest these as remedies intended to supersede other therapeutical measures, but only as useful auxiliaries thereto.—(*Buff. Med. Jour.*)

LOCAL TREATMENT OF ERYSIPELAS—By JOSEPH PARISH, M. D.—Probably there is no question in the whole range of medical discussion in which there is more contrariety of opinion, and difference in the experience of medical practitioners. Every physician has his peculiar mode of practice, founded upon successful individual experience, and while some are prepared to advocate the non-application of any external means, others are bold to approbate the virtues of a variety of substances, as different in their properties, as those who may employ them are, in their opinions. Some of our best authorities claim great relief from the use of cold applications, while others favor the employment of hot and emollient fomentations. Hog's lard, and simple molasses have their advocates; buckwheat and rye meal, mercurial ointment, oxide of zinc, kreosote, nitrate of silver, tinct. iodine, and other agents of different names and properties, are pressed into service with equal claims of restorative power. So far as my own experience and observation will justify the expression of an opinion, there are no substances in the whole range of the materia medica, of equal value in this complaint, with the nitrate of silver, and the compound tincture of iodine. Probably the weight of recorded testimony is on the side of the former agent, although the latter has been fairly tried, and proved by ample experience to be equally serviceable.

Whether erysipelas requires any local treatment at all, is a question in the minds of many judicious and skilful practitioners that is yet unsettled. The disease is asserted to be dependant upon a morbid condition of the blood, and the constitutional injury arising from this change, it is said can only be repaired by means that are calculated to improve the vital fluid, or to secure the abstraction of a portion of it from the body; but whatever may be the pathological condition of the blood, experience proves most conclusively that sedative external remedies, exercise a controlling power over the cuticular inflammation, which cannot be exerted without them. The cutaneous disease is occasionally the only morbid change which is exhibited by post-mortem examinations, and there is much reason to believe that the property of contagion, which belongs to the malady, resides in the inflamed and often abraded surface.—*N. J. Med. Rep.*

SURGERY.

TREATMENT OF FRACTURE OF THE CLAVICLE BY MEANS OF A NEW INSTRUMENT.—BY J. B. COLEMAN. M. D.—This instrument and its mode of action upon himself is thus spoken of and described by Dr. Coleman:

It was so arranged, that force applied to the ends of a lever at the sound shoulder, should produce the motions that were necessary to draw the fractured ends of the bone into true anatomical position, and hold them there, with but slight inconvenience to the patient. To do this, the apparatus was in the form of a shoulder brace, made of steel, and in outline nearly resembling the claviculæ joined together at the back. The space occupied by each clavicle was left open, or in other words, the steel work surrounded each bone, so that it could move considerably within the included space. The space over the scapula of the injured side, was covered with buckskin, tight as a drum head, so as to make resistance on that part, and prevent motion; the other side was left open to allow free motion of that shoulder. The central part of the back brace, had a long pad resting upon about eight inches of the spine. This prevented excoriation when force was applied. The extremity of the brace, on the side of the injury, projected farther laterally than the axilla, and above the deltoid projection of the shoulder. From this point a strap, furnished with a buckle for adjustment, passed down through the head of a wedged shaped pad placed in the axilla. From the other side of the brace, two ends projected, one above, corresponding with the first named, the other lower down, on a line with the bottom curves of the brace. From these ends, straps proceeded to attach to a sling in which the arm of the injured side was suspended. The strap from the upper end buckled to the upper part of the sling, near the wrist, and that from the lower end, to the inner and lower part of the sling, somewhere about the middle of the forearm.

The operation of this arrangement is obvious. We have here a lever of the simplest kind. The power, the weight of the arm of the affected side, drawing by the hand, as occasion may require, on the straps connected with the ends of the shoulder brace last described—the fulcrum, the backbone; the resistance, the shoulder of the broken clavicle. The direction of the force upon the injured part is upward, outward and backward; the means of retaining the bone in position, simple, always at command, and not the least impediment to the mechanical movements of the ribs. The only point liable to excoriation, is the axilla, and with this apparatus, less than any other.

To prevent the brace from sinking on the back, and to guard against any lateral swerving, a piece of wood or metal about two inches wide is made, so as to have sufficient elasticity, is attached to the central piece, extending down the spine, and adapted to its curvatures. This reaches somewhere near the waist, and is secured by a belt passing around the body.

Fifteen days after the fracture of a collar bone, I applied this apparatus to myself. Up to this time the slightest jar caused a movement between the ends of the bone, and unless the bandages were intolerably tight; perfect adaptation seemed impossible. From this instant, position was easily maintained, no movement seemed to disturb the bone, I was able to ride over rough roads without the least inconvenience, and when union took place there was what is extremely rare after these accidents, not the smallest distortion of outline. This experiment led me to use the apparatus in many other cases in which the results have been the same.—*N. J. Med. Rep.*

New Method of Expelling Foreign Bodies from the Larynx.—Dr. Charles Hansford, of Knoxville, Ill., in a letter to the editors of the *N. W. Med. and Sur. Journ.*, (May 1849,) relates the case of a colored girl who had accidentally got a pin into the windpipe, and was suffering with all the distressing symptoms consequent upon obstruction of the air passages from a foreign body. She was directed to lie upon a bench, face downwards, with the head projecting over the edge, and to take a full inspiration. Whilst in this position, with the lungs filled with air, a smart blow or two on the back with a pillow, made hard and firm by compression, had the effect to expel the pin at once from the larynx. In this case, the first blow moved the pin about an inch, the second forced it into the mouth.

"Since that time," Dr. H. writes, "I have had several opportunities of trying the maul made of a pillow. I have driven out water-melon seeds in this manner, on three different occasions; a grain of corn at one time, and a large glass bead at another."—*Amer. Jour. Med. Sci.*

"EXTRODUCTION" OF THE BOUGIE FOR STRICTURE.—By Prof. BRAINARD.—Prof. Brainard, in the N. W. Med. and Sur. Journal, gives the history of a case where the patient had suffered for eleven years from stricture of the urethra following gonorrhœa; retention of urine had almost become perfect; the patient complained of great pain and a constant desire to void urine, without the ability to pass only a few drops at a time. Various careful but ineffectual attempts were made to pass the bougie, the bladder had risen several inches above the pubis nearly to the umbilicus. The bladder was now punctured above the pubis with the long curved trochar and the stylet withdrawn. As soon after the operation as the state of the parts would admit, long and persevering attempts to pass the bougie were made, but without success. Near the posterior extremity of the spongy portion of the urethra was a knotty projection, beyond which the instrument would not pass. The thought now occurred to Dr. B., that the prostatic and membranous portion of the urethra could be explored by means of an instrument passed into the bladder through the opening made by the puncture, and still occupied by the canula. The attempt was made by means of a small-sized bougie rendered firm by means of a stiff wire bent to form the segment of a circle. Very little difficulty was met with in the attempt to pass it. By a very little exertion the point of the instrument was brought to within two inches of the orifice of the urethra and then seized by means of a pair of forceps, the wire was withdrawn and the open end of the bougie passed into the bladder. The instrument was allowed to remain for three days when it was withdrawn and a larger one substituted. Larger instruments were used from time to time until one above the medium size passed without the least difficulty. One month after the first operation the cure was nearly complete. The following practical deductions are drawn by Dr. B., from this case.

1st. The puncture of the bladder above the pubis, if care be taken to prevent infiltration of urine, is a slight operation, and should not be deferred till extreme distention takes place. In further proof of this, we would refer to a case published not long since in the Buffalo

Medical Journal, by our friend Dr. J. P. White, of that city. In that case a puncture of the kind served as a substitute for a urethra for a long time with but trifling inconvenience.

2d. This puncture may be made useful in catheterism. For this operation of passing a catheter forwards, which so far as we are aware, has not been done before, a friend has suggested the name of *Extroduction.* It may be performed with a properly curved instrument very readily, and if difficulties should occur, they may be obviated by passing the finger into the rectum. If the cases in which it is likely to be useful are rare, they are extremely urgent, and when they occur this operation may prove a valuable means of relief.

MIDWIFERY.

Case of Complete Inversion and Expulsion of the Uterus. By T. H. Yardley, M. D., (*Amer. Jour. Med. Sci.*)—At five o'clock, P. M., Jan. 5th, 1849, I found on my slate a message, requesting my immediate attendance on Mrs. H———, a lady whom I had engaged to attend in her accouchment. She had taken a dose of oil in the morning, which operated freely, and so rapid was her labor, that she had barely time to get on the bed before the child was born.

Two hours after, I found her lying across the foot of the bed, entirely pulseless, skin cold and clammy, and her voice nearly inaudible. Her attendants were in great consternation. and one of them sat at the foot of the bed, holding on to the cord, for the purpose, as she said, of preventing it from " going up." I directed some brandy and water to be given her immediately, and on passing my finger along the cord, I came in contact with a large solid body, which I at first thought was another fœtus protruding from the vagina; but a very slight examination satisfied me it was the placenta, attached to the inverted uterus, which had passed entirely out of the vulva.

I immediately separated the placenta, which was very slightly adherent, and then placing my fingers in a conical position, I pressed them against the middle of the inverted uterus, and returned it to its proper position with facility. Another difficulty now presented itself: the uterus did not manifest the slightest disposition to contract, and was so flaccid that I felt satisfied it would not retain its position if I withdrew my hand; I therefore kept it in the cavity of the uterus, and gently irritated its internal surface. The hemorrhage was very slight; but the patient was already pulseless, and the attendants so much alarmed as to afford very little assistance. I directed stimulating frictions to be made to the extremities, and sent one messenger for my friend Dr. Janney, and another for some vinous tincture of ergot, which I gave in doses of a teaspoonful every ten minutes with a teaspoonful of brandy and water. I retained my hand in the uterus half an hour before I felt the slightest contractions; they then came on, at short intervals, with increasing strength; and, after Dr. Janney arrived, we considered it safe to withdraw my hand. Dr. Janney placed his hand on the abdomen, and satisfied himself that the uterus continued to contract; the patient, however, continued so ill, that he gave me his valuable assistance for two hours, during which time we plied her freely with brandy, camphor, carbonate of ammonia, and other stimulants, and applied cloths wrung out of hot capsicum and turpentine to her extremities. Under this treatment, she gradually rallied; but it was not till after midnight that I considered her sufficiently revived to leave her. Her convalescence was tedious, but perfect; and the child did well, though there was not the slightest secretion of milk.

I am aware that many authors of merit recommend that the uterus should be reverted before the placenta is detached; and this is no doubt proper practice where the uterus is within the vagina. But where an unusually large placenta, as in this case, has passed entirely out of the os externum, I think it would be a difficult task to force it back again, and further, as I doubt the propriety of making the attempt, particularly as I am not aware of any evil having resulted from first separating the placenta; and in many cases in which it has been attempted to replace the uterus with the adherent placenta, it was found impossible to succeed. Professor Meigs, in his recent work on obstetrics, records a case in which both he and the late Professor James tried without effect—and I am sure that no one acquainted with these gentlemen could doubt their skill and perseverance;—but they were compelled to detach the placenta before they could replace the uterus. What influcnce traction of the cord had in this case, I am unable to determine. The patient was an exceedingly delicate woman; this was her second accouchment, and she had recently undergone much bodily fatigue, and mental anxiety and depression, in consequence of the illness of her husband, who had died a few weeks previously of phthisis.

PUERPERAL METRITIS TREATED BY IODIDE OF POTASSIUM.—By J. R. LUDLOW, M. D. The patient was 28 years of age, and the mother of three children, and possessed a tolerably good constitution. Her previous labors had all been difficult, caused by an antero-posterior contraction of the superior straight. Twenty-four hours after delivery she was seized with the usual symptoms of metritis. She was put upon the usual treatment in such cases, which treatment was continued until the afternoon of the fourth day, when, as there was no amelioration of the symptoms, she was put upon the use of iodide of potassium, in five grain doses every four hours, combined with small doses of digitalis and nitre, together with poultices and vaginal injections. This treatment was continued for seven days, when a perfect recovery had taken place. Dr. L. mentions a case treated in the same way, which proved unsuccessful. In speaking of these cases, he says:—

The same *general* treatment was adopted in both; the one died, the other recovered. I do not by any means, assert that the difference in the result was attributable to the iodide of potassium. Much more extensive trial would be necessary to establish so important a fact. But as it produced no manifest harm, and can readily be added to other means, is it not the duty, as well as the interest of the medical profession, to test its value by future experiments? Certain it is, the steady and rapid progress of convalescence during its use, was to say the least, not a little surprising to myself, and I offer this case in addition to others already reported, showing the beneficial effects of the employment of this remedy.—*N. J. Med. Rep.*

MATERIA MEDICA AND TOXICOLOGY.

Poisoning by Oil of Cedar, (*J. Virginiana.*)—*Report of Four Cases.*—By S. C. Wait, M. D.—(*Bost. Med. and Sur. Jour.*)—The rarity of poisoning by this substance, and the absence of any notice being taken of the same in Toxicological works, etc., has led Dr. Wait to report the particulars of four cases which have within a few years come under his own personal observation. The subjects were all females, and in three of the instances it was taken for the purpose of producing abortion. The symptoms manifested in all may be looked upon as somewhat characteristic. Convulsions of a "*tonic*" character affecting the whole body; eyes very glaring and still; jaws set; hands clenched; breathing, struggling, choking and strangling; countenance bloated and livid; pulse from 45 to 60 per minute; vomiting of a fluid having a strong odor of the oil. As soon as the convulsions ceased the patients passed into a profound coma. Stertorous breathing, however, continued but for a short time, being soon followed by a peculiar kind of breathing, the chief character of which was "an unsuccessful heaving of the chest in inspiration, and a limpsy dropping together of the chest in expiration." The countenance assumed a venous aspect; pulse sank and soon became intermittent; pupils dilated; soft parts about the neck sunk down at every inspiration, the whole indicating that venous congestions were taking place in the large venous trunks behind the heart, and that the balance between the circulation and respiration was lost.

Two of the four cases proved fatal. The quantity taken in each was from half an ounce to an ounce. The post-mortem appearances were—the odor of cedar oil given forth on opening the stomach; the lining membrane of the stomach presented several small red patches as large as the finger-nail upon its upper and anterior surface; for some distance around these patches the mucous membrane had lost its usual polished appearance; the duodenum showed marked signs of inflammation. The uterus in each instance was in a healthy gravid state. The usual treatment in cases of poisoning from narcotic irritants was pursued. In one instance marked benefit followed free bleeding.

Lupulin as an Anaphrodisiac.—(*Amer. Jour. Med. Sci.*)—Dr. Page called the attention of the Philadelphia College of Physicians to the lupulin as a means of controlling the painful erections occurring in venereal cases. He has employed it now for two years, and has found it a better and more effectual remedy than any other he has tried. He gives it in the dose of from five to ten grains, and has never known an instance in which the second dose did not succeed in subduing the painful erections, so troublesome in cases of gonorrhœa. It does not cause the headache, constipation, and other unpleasant effects consequent upon the use of camphor and opium. He has found the remedy useful also in cases of involuntary seminal emissions. It will not cure the disease, but prevents the discharges, so long as the patient remains under its influence.

Dr. Edward Hartshorne has employed it successfully in one case to destroy venereal appetite in a man addicted to onanism.

OBITUARY.

Death of Professor Barbour.—It is with deep regret we have to record the decease—by the fatal epidemic which has rendered St. Louis desolate, and been fatal to so many of its exemplary citizens—of Professor Barbour, who ably filled the chair of Obstetrics in the University of Missouri, the medical department of which is located in St. Louis.

Professor Barbour was a native of Virginia, and a son of Judge Barbour, of the Supreme Court of the United States, one of the distinguished worthies whose memory Virginia cherishes. He received his professional education partly at the University of Virginia, and graduated in the University of Pennsylvania. Many years ago he removed to the south-west, and occupied for some time, with marked credit, the chair of Chemistry, in Lagrange College, Tennessee. The chair of Obstetrics, in the University of Missouri, having been offered him, he moved to St. Louis some years ago, and has since resided there; honored as an able teacher; beloved as a man; extensively confided in as an honorable and philanthropic physician; and, when prematurely cut off, having still brighter prospects before him. He had the greatest confidence in a compound of morphia, Hoffman's anodyne liquor, and other excitants, similar to many formulæ in use in cholera and choleroid affections; but his own case is another melancholy example of the utter inapplicability of any remedy, or combination of remedies, for special morbid conditions, which may, notwithstanding, have received a common appellation.—*Med. Exam.*

Death of Dr. A. Hunter.—On the first of August, Abraham T. Hunter, M. D., aged 52 years. Another melancholy instance of devotion and sacrifice to the public good. He was a generous and talented physician.

Death of Dr. Alexis Smith.—On the 18th of July, Alexis Smith, M. D., aged 49 years, of Cholera. Dr. Smith was, at the time of his death, cholera physician to the 3d Ward. His duties had been arduous in the extreme.

TO READERS AND CORRESPONDENTS.

Since the completion of Dr. Batchelder's article on Inflammation, in this number of the Journal, the whole has been republished in a monograph form. We commend this essay to the attention of students of medicine as well as the profession generally.

It is with no ordinary pleasure that we announce to our readers, that the printing of the second volume of the Transactions of the American Medical Association is now nearly completed. The publishing committee having announced that the "proofs" of the reports have all been received, and the printing now will proceed as rapidly as possible. The volume will exceed 800 pages, 600 of which have been already printed.

The following publications have been received since our last:—

Curabilite de la Phthisie et des Scrofules Appuyée sur des Preuves Authentiques. Par A. M. Bureaud—Riofrey, Docteur en Médecine de la Faculté de Paris, etc. etc. etc. Paris. German, Bailliére, Libraire, éditeur. Londres Billiére. 1847. 8vo. pp. 216. (From the Author.)

Du Choléra Moyens Préservantifs, et Curatifs au Philosophie des Grandes Epidémies. Par A. M. Bureaud—Riofrey, Docteur en Médecine de la Faculté de Paris, etc. etc. etc. Paris, German Bailliére, Libraire, éditeur: Londres Billére. 1847. 8vo. pp. 116. (From the Author.)

Lectures on the Diseases of Childhood. By Charles West, M. D., F. R. C. P., Senior Physician to the Royal Infirmary for Children, etc. etc. Philadelphia: Lea and Blanchard. 1850. 8vo. pp. 451. (From the Publishers.)

Essays on Pathology and Therapeutics. Being the substance of the course of Lectures delivered. By Samuel Henry Dickson, M. D., Professor of the Institute and Practice of Medicine, in the Medical College of the State of South Carolina. New-York: S. S. & W. Wood. 1845. 2 vols. 8vo. pp. 588–651. (From the Publishers.)

The Practice of Surgery: Embracing Minor Surgery and the Application of Dressings, etc., etc. By JOHN HASTINGS, M. D., U. S. N., etc. etc. With numerous Illustrations. Philadelphia: Lindsay and Blackiston. 1850. 12mo. pp. 479. (From the Publishers.)

Physician and Patient: or A Practical View of the Mutual Duties, Relations and Interests of the Medical Profession and the Community. By WORTHINGTON HOOKER, M. D. New-York: Baker and Scribner. 1849. 12mo. pp. 453. (From the Publishers.)

Observations on the Spread of Asiatic Cholera and its Communicable Nature. By JOHN EVANS, M. D., Professor of Obstetrics and the Diseases of Women and Children, in Rush Medical College, etc. etc. Chicago: 1849. Pamphlet, 8vo. pp. 43. (From the Author.)

Remarks on premedication and the doctrine of a retrograde action from Collapsion of the Absorbents and Capillary vessels. By Samuel A. Cartwright, M. D. Pamphlet, 8vo. pp. 8. (From the Author.)

A Treatise on Diseases of the Bones. By EDWARD STANLEY, F. R. S., President of the Royal College of Surgeons of England and Surgeon to St. Bartholomew's Hospital. Philadelphia: Lea and Blanchard. 1849. 8vo. pp. 286. (From the Publishers.)

Medicines, their Uses and Mode of Administration. Including a complete Conspectus of the three British Pharmacopœias, an account of all the new Remedies and an Appendix of the Formulæ. By J. MOORE NELIGAN, M. D., etc. etc. From the second Dublin edition with additions. By BENJAMIN W. MCCREADY, M. D., Professor of Materia Medica and Pharmacy, in the College of Pharmacy of New-York: W. E. Dean. 1849. 12mo. pp. 474. (From the Publisher.)

> *A valuable little work. We regret that it was received too late for farther notice in this number.*

Pollard and Minkler's Obstetrical Supporter, and a description of its Application, Use and Beneficial Effects, as connected with the natural parts and organs in the Process of Parturition, embracing also a description of the Muscles concerned in the mechanism of Labor. By A. POLLARD, M. D. Keeseville: John F. Morgan. 1849. 12mo. pp. 132. (From the Author.)

Surgical Essays and cases in Surgery. By DAVID L. ROGERS, M. D., etc. Newark: N. J. 1849. 8vo. pp. 154. (From the Author.)

Catalogue of Books on Anatomy, Medicine, Surgery, Midwifery, Dentistry, Chemistry, Agriculture, etc. etc. For sale by S. S. & W. Wood. New-York, 1849. 12mo. pp. 98. (From the Publishers.)

The following Journals have been received in exchange:

The Medical Examiner and Recorder of Medical Science, edited by David H. Tucker, M. D., and F. G. Smith, M. D., for September and October. (Monthly. Philadelphia.)

The American Journal of the Medical Sciences, edited by Isaac Hays, M. D. for October. (Quarterly. Philadelphia.)

The American Journal of Insanity, edited by the Officers of the New-York State Lunatic Asylum, for October. (Quarterly. Utica, N. Y.)

The New-Jersey Medical Reporter, and Transactions of the New-Jersey Medical Society, edited by Joseph Parrish, M. D., for October. (Quarterly. Burlington.)

The American Journal of Pharmacy, published by authority of the Philadelphia College of Pharmacy, edited by Joseph Corson, M. D., and Wm. Proctor, Jr., for October. (Quarterly. Philadelphia.)

The Charleston Medical Journal and Review, edited by P. C. Gaillard, M. D., and H. W. De Saussure, M. D., for September. (Bi-Mouthly. Charleston.)

The New-Orleans Medical and Surgical Journal, devoted to Medicine and the Collateral Sciences, edited by A. Hester, M. D., for September. (Bi-Monthly. New-Orleans.)

Southern Medical and Surgical Journal, edited by Paul F. Eve, M. D., for September and October. (Monthly. Augusta.)

St. Louis Medical and Surgicul Journal, edited by M. L. Linton, M. D., and Wm. M. McPheters, M. D., John S. Moore, M. D., and Joseph N. McDowell, M. D. (Monthly. St. Louis.)

Buffalo Medical Journal, and Monthly Review of Medical and Surgical Science, edited by Austin Fliut, M. D., for October. (Monthly. Buffalo.)

The North Western Medical and Surgical Journal, edited by J. Evans, M. D., for September. (Bi-Mouthly. Chicago and Indianapolis.)

Transylvania Medical Journal, edited by Ethelbert Dudley, M. D., for October. (Bi-Montbly. Lexington.)

The Western Lancet and Hospital Reporter, edited by L. Lawson, M. D. September and October. (Monthly. Cincinnati.)

The Boston Medical and Surgical Journal, edited by J. C. V. Smith, M. D. September and October numbers received. (Weekly. Boston.)

The Western Journal of Medicine and Surgery, edited by L. P. Yandell, M. D. and T. S. Bell, M. D. September and October numbers received. (Monthly. Louisville.)

The New-York Dental Recorder, edited by C. C. Allen, M. D., Dentist, for September and October. (Monthly. New-York.)

The British-American Journal of Medicine and Physical Science, edited by Archibald Hall, M. D., L. R. C. S. E., for September and October. (Monthly. Montreal.)

Dublin Quarterly Journal of Medical Science, edited by ——. For August. (Quarterly. Dublin, Ireland.)

The British and Foreign Medico-Chirurgical Review, or Quarterly Journal of Practical Medicine and Surgery, edited by ——. For July. American edition. (Quarterly. New-York.)

Dublin Medical Press, edited by ———. For June. (Weekly. Dublin.)

London Medical Gazette, or Journal of Practical Medicine, edited by ———. For September. (Weekly. London.)

London Journal of Medicine, a Monthly Record of the Medical Sciences, edited by ———. For July and August. (Monthly. London.)

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All remittances of money and letters on the *business* of the Journal, should be addressed to the publisher.

The advertising sheet belongs to the business department of the Journal, and all communications for it, should be addressed to the publisher, under whose exclusive control it is.

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THE NEW-YORK
JOURNAL OF MEDICINE.
FOR NOVEMBER, 1849.

PART FIRST.

ORIGINAL COMMUNICATIONS.

Art. I.—*Amputations and Compound Fractures, with Statistics.* By John O. Stone, M. D., Surgeon to Bellevue Hospital, late Surgeon of N. Y. City Dispensary, etc., etc.

The mortality which followed upon wounds in the Astor Place riot has occasioned much discussion upon compound fractures and their treatment. Primary amputations have been looked upon with suspicion, and the advocates of this doctrine have been dismayed at the unfortunate termination of every case, I believe, that was touched with the knife.

But in order not to speak from prejudice or the limited experience of cases within our own observation, we have made use of the materials near at hand for the elucidation of the chief points in the discussion.

The statistics are not very extensive, but they will show the great mortality in amputations, in general, and the mortality in amputations of particular limbs. They will, moreover, help us to ascertain the success of primary and secondary amputations in military and in civil practice, and to institute a comparison between them.

The favorite doctrine of primary amputation will not be found to be supported by the evidence that we expected. But certain views of the treatment of compound fractures, which we entertain, will be found more confirmed than ever, and it will be seen that judicious management will be attended with fewer deaths than amputation.

MORTALITY IN ALL AMPUTATIONS.

Boucher declared that two-thirds died,	a mortality of	$66\frac{2}{3}$	per cent.
Faure saved 30 or 40 out of 300,	“	90	“
Fercoq lost 2 in 60,	“	3	“
Percy lost 6 in 92,	“	$6\frac{1}{2}$	“
Guthrie, at N. Orleans, 7 in 45,	“	$15\frac{1}{2}$	“
“ Toulouse, 9 in 47,	“	$19\frac{1}{7}$	“
English Army in Spain and Port., 25 in 66,	“	38	“
Aboukir and Camperdown, 0 in 30,	“	0	“
Marcelet in Aboukir Bay, 0 in 11,	“	0	“
Dupuytren,	“	$33\frac{2}{3}$	“
Roux,	“	$33\frac{2}{3}$	“
Hyppolyte Larrey,	“	$16\frac{2}{3}$	“
Dubois,	“	$11\frac{2}{9}$	“
Liverpool N. Hosp., 13 in 47,	“	$27\frac{2}{3}$	“
University Coll. Hosp., 10 in 66,	“	$15\frac{5}{33}$	“
Edinburgh Royal Inf., 19 in 69,	“	$27\frac{1}{2}$	“
N. Y. Hospital, 16 in 91,	“	$17\frac{2}{3}$	“
Mass. Gen. Hosp., 14 in 59,	“	$23\frac{1}{8}$	“
Pennsylvania Hosp., 22 in 79,	“	$27\frac{4}{5}$	“
Baudens, 9 in 20,	“	45	“
Gendrin, 23 in 58,	“	$39\frac{2}{3}$	“
Guyon, African Army, 17 in 63,	“	27	“

In the Glasgow Infirmary, out of 376 operations, given by Mr. Lawrie, 100 died, a mortality of 27 per cent. Mr. Phillips, in his statistical inquiry into the result of operations in Europe and America, makes the mortality about $23\frac{7}{16}$ per cent.

AMPUTATIONS OF THE ARM.

All our statistics on this subject are those furnished by Dr. Buel, from the books of the New-York City Hospital. There were eleven amputations of the arm, and all recovered. There were eleven amputations of the forearm, and three died. Most of them were cases of accidents, for which primary amputation was performed; and it is worthy of remark, that all the deaths which occurred followed upon secondary amputations.

MORTALITY IN AMPUTATIONS OF THE LEG.

Liverp'l Northern Hosp.,	23 cases,	4 deaths,		a mortality of		$17\frac{9}{23}$	pr. ct.
University Coll. Hosp.,	25	"	3	"	"	12	"
Mr. South,	9	"	3	"	"	$33\frac{1}{3}$	"
Mass. Gen. Hosp.,	10	"	5	"	"	50	"
New-York Hosp.,	24	"	7	"	"	$29\frac{1}{6}$	"
Pennsylvania Hosp.,	23	"	9	"	"	$39\frac{1}{8}$	"
Parisian Hosp.,	192	"	106	"	"	$55\frac{1}{5}$	"
Laroche, at Lyons,	3	"	1	"	"	$33\frac{1}{3}$	"

This gives us for the English Hosp.'s	57 cases,		10 deaths,		or $17\frac{31}{57}$	pr.ct.
" " " American	"	57	" 21	"	" 37	"
" " " French	"	195	" 107	"	" 55	"

The mortality in the American hospitals was more than double that in the English hospitals, and the mortality in the French hospitals more than three times as great as in the English hospitals.

It must be remembered that we have furnished the statistics as we have found them. One hospital presents a mortality very different from that of another, and we may erroneously believe that the hospital which is most successful in amputating limbs is equally successful in saving them. The meagre information we have collected has shown the above results, but if more numerous facts could have been obtained from other hospitals, possibly the mortality in the American hospitals would not have presented so great a contrast to the English. It will, at least, be perceived that in the same country the mortality is very various in the different hospitals, and that in all countries there is a varying mortality of from 12 per cent. to $55\frac{1}{5}$ per cent.

MORTALITY IN PRIMARY AND SECONDARY AMPUTATION OF THE LEG.

	Primary.				Secondary.			
Liverpool North. Hosp.,	16	cases,	2	deaths,	7	cases,	2	deaths.
University Coll. Hosp.,	3	"	2	"	22	"	2	"
New-York Hosp.,	12	"	5	"	7	"	3	"
Pennsylvania Hosp.,	22	"	1	"	1	"	0	"
Mass. Gen. Hosp,,	5	"	2	"	19	"	4	"
	58	"	12	"	56	"	11	"

A mortality in primary amputation of the leg of about 20$\frac{2}{3}$ per cent., and a mortality in secondary amputation of the leg of 19$\frac{9}{14}$ per cent., or a difference of about 1 per cent. only in favor of secondary amputation of the leg.

By comparing the mortality in the English hospitals with that in the American hospitals, we shall have

The mortality in primary amp. of leg in English hosp's,	22 per cent.
“ “ “ “ “ American “	20$\frac{1}{2}$ “
Which is 1$\frac{1}{2}$ per cent. in favor of American hospitals.	
The mortality of secondary amp. of leg in Eng. hosp's,	14 “
“ “ “ “ “ Amer. “	26 “
Which is 12 per cent. in favor of the English hospitals.	

MORTALITY IN AMPUTATIONS OF THE THIGH.

Liverpool North. Hosp.,	9 cases,	2 deaths—mortality,	22$\frac{2}{9}$	per cent.
University Coll. Hosp.,	22 “	4 “ “	18$\frac{2}{11}$	“
Mr. South,	7 “	6 “ “	85$\frac{5}{7}$	“
Mass. Gen. Hosp.,	34 “	8 “ “	23$\frac{1}{2}$	“
N. York Hosp.,	37 “	13 “ “	35	“
Pennsylvania Hosp.,	16 “	4 “ “	25	“
Parisian Hosp.,	201 “	126 “ “	62$\frac{2}{3}$	“
Laroche, at Lyons,	5 “	3 “ “	60	“
Guyon, African Army,	30 “	26 “ “	86$\frac{2}{3}$	“

A varying mortality of from 18$\frac{2}{11}$ per cent. to 86$\frac{2}{3}$ per cent.

In the English Hosp.	38 cases,	12 deaths—mortality,	31$\frac{11}{19}$	per cent.
“ Amer. “	84 “	22 “ “	26$\frac{4}{21}$	“
“ French “	206 “	129 “ “	62$\frac{8}{13}$	“

A mortality five per cent. less in the American hospital than in the English; while the mortality in the French hospitals is exactly two-fold greater than it is in the English hospitals.

In the French army in Africa, the mortality was 86$\frac{2}{3}$ per cent., while, according to Guthrie, the mortality in the English army in America and on the continent of Europe was about 66$\frac{2}{3}$ per cent.

In the French Hospitals, in 46 amputations of the thigh for injuries, 34 died, a mortality of 74 per cent.

MORTALITY IN PRIMARY AND SECONDARY AMPUTATIONS OF THE THIGH.

	Primary.		Secondary.	
	Cases.	Deaths.	Cases.	Deaths.
Liverpool Northern Hosp.,	7	1	2	2
University Coll. "	2	1	20	3
Roux, in 1848,	1	1	2	2
New-York Hospital,	7	4	11	3
Pennsylvania "	6	4	2	0
Mass. Gen. "	6	3	28	5
	29	14	65	15

A mortality of $48\frac{8}{29}$ per cent. in primary amputations of the thigh, and a mortality of 23 per cent. in secondary amputations of the thigh in civil hospitals. This gives us a difference of 25 per cent. in favor of secondary over primary amputations in civil practice.

But if we take $66\frac{2}{3}$, (Mr. Guthrie's proportion of mortality in military hospitals, under the most favorable circumstances,) and $30\frac{4}{5}$ per cent. as the mortality in both primary and secondary amputations of the thigh in civil hospitals, we shall have a difference of $35\frac{1}{15}$ per cent. in favor of the civil hospitals.

If more accurate data could have been obtained, this subject could have been made more clear. We must remember that the primary amputations are for accidents, which may at the same time have caused a general bruising of the body, and that many of them require, perhaps as a desperate resource, immediate amputation, which, if not resorted to, would have led to inevitable death.

Paré, Petit, Le Dran, Bromfield, and most of the earlier surgeons, are in favor of primary amputations, *i. e.*, amputations in the first twenty-four hours after the accident, before the inflammatory period commences. Wiseman, who lived in 1676, during the reign of Charles II., says, "if you decide to operate, do so at once, while the soldier is in heat and in mettle." Faure says, "amputate after the subsidence of the first symptoms, and when suppuration is produced." Boucher, who lived at the same period, (1745,) contested this point with Faure. John Hunter, who was the contemporary of

Faure, agrees with him; and this practice, supported by the two great surgeons of France and England, continued until after the period of the great French revolution, when Baron Larrey, in France, and Guthrie and Dr. Hennen, in England, decided in favor of primary amputations. Dr. Rush speaks of the success of primary amputations during the American revolution, and Dubor, who served in America, states that the American surgeons amputated at once, and lost but few, but that the French surgeons delayed, and lost many. Fercoq, in 1794, out of 60 primary lost but 3, and Mascelet, in the naval action in Aboukir Bay, out of 11 primary lost none.

Dr. Walker thinks that Faure, who lost 30 or 40 out of 300, at the battle of Fontenoy, owes his want of success to having operated during the inflammatory period, and derives the ground for this belief from a remark of Faure's, "that on account of the deficiency of surgeons, the wounded could not be properly attended to, and the operations were done when, as it were, the whole machine was in a state of ardent fever." He also believes that Faure, being unsuccessful, adopted the opposite extreme and recommended that amputations should be peformed only during the suppurative period.

M. Velpeau explains the matter differently and says, "that Faure rejected primary operations from the fear of cutting off limbs that might have been saved," and Boucher, his opponent, contended that Faure, in his anxiety to save limbs, lost many patients.

M. Guthrie questions Hunter's authority, and it has been objected to him that he was biased by the distinguished name of his contemporary, Faure, who gained the prize offered by the French Academy upon this very question of primary and secondary amputations. Mr. Guthrie also states, that so convinced were all army and navy surgeons of the superior success attendant upon primary amputations, that at the close of the war of 1815, there was not an exception to be found. M. Guthrie is still living, and has had the pleasure of seeing this principle of practice introduced into the civil hospitals of England, France, and America.

It would require some courage, much experience, and a strong array of facts, to overthrow this opinion. But yet, during the revolution of 1848, in France, the whole question has been revived. M. Roux has come forward in favor of primary, and M. Malgaigne in favor of secondary amputations, or rather, in opposition to all amputations, and states, that in the attempt to save limbs, we run no greater risk than we do in amputating them. M. Malgaigne founds his opinion upon experience derived from his campaign in Poland, when, in an army of 80,000 men, neither he nor his colleagues succeeded in saving a case after amputation of the lower extremities ; and also upon results furnished from statistics gathered from the Parisian hospitals, from 1836 to 1842, where the mortality in all amputations from wounds was found to be about 75 per cent. M. Malgaigne also particularizes the fact, that Ribes, at the Invalides, out of 4000 patients, did not find a consolidated femur after fracture, nor a case of amputated thigh after fracture.

M. Roux doubts M. Malgaigne's statistics, and declares that strange good or ill fortune may attend any surgeon's practice. Thus, in early life, he had 12 successive amputations, and all of them successful; while later he had lost 12 out of 36 ; and lays down the rule that it is our duty to amputate, if there is the least doubt of the preservation of the limb, and that it is better to amputate too much than not enough.

We shall have occasion to recur to the wounded in the last French revolution, and would therefore only state at present that M. Malgaigne's opinions appear to have influenced the surgeons of Paris and prevented them from operating so much as usual, and that surgical science is indebted to M. Malgaigne for a new starting point.

But to return to the question of primary and secondary amputations, we have collected a few statistics in addition to those already offered, which are not absolutely conclusive of the question, yet, in connection with the doubts suggested by M. Malgaigne, are interesting and important.

It is to be regretted that the particular member, arm, forearm, thigh or leg, is not mentioned, so that an exact comparison could be made.

	Primary.			Secondary.		
	No.	Deaths.	Mort.p.ct.	No.	Deaths.	Mort. per ct.
Guthrie at Toulouse.						
Upper Extremity, .	7	1	$14\frac{2}{7}$	16	4	25 pr. ct.
Lower Extremity, . .	41	9	22	37	18	$48\frac{2}{3}$
Alcocks in Spain and Portugal.						
Upper Extremity, .	12	1	$8\frac{1}{3}$	12	2	$16\frac{2}{3}$
Lower Extremity, . .	21	4	19	21	10	$47\frac{2}{3}$
Hayward & Norris, for injuries.						
Upper Extremity, .	17	3	$17\frac{11}{17}$	11	1	$9\frac{1}{11}$
Lower Extremity, . .	26	8	$30\frac{2}{3}$	25	11	44
Buel, N. Y. H. for injuries.						
Upper Extremity, .	11	0	0	4	1	25
Lower Extremity, . .	19	9	$47\frac{7}{19}$	19	5	$26\frac{1}{3}$
Upper Extremity, ...	47	5	$10\frac{5}{8}$	43	8	$18\frac{26}{43}$
Lower Extremity, ...	107	30	28a	102	44	$43\frac{1}{7}$

A difference in favor of primary amputations of the upper extremities of about 8 per cent., and in favor of primary amputations of lower extremities, of 15 per cent. But in order to make the comparison more clear between military and civil surgery, we will place each separately.

MILITARY SURGERY.	Primary.			Secondary.		
Upper Extremity,	19	2	$10\frac{1}{2}$ pr. ct.	28	6	$21\frac{3}{7}$
Lower Extremity,	62	13	21 "	58	28	$48\frac{8}{29}$

A difference of about 11 per cent. in favor of primary amputations of the upper extremities, and 27 per cent. in favor of primary amputations of lower extremities in military surgery.

CIVIL SURGERY.	Primary.			Secondary.		
	No.	Deaths.	Mortality.	No.	Deaths.	Mortality.
Upper Extremity,	28	3	$10\frac{5}{7}$	15	2	$13\frac{1}{3}$
Lower Extremity,	45	17	$37\frac{7}{19}$	44	16	$36\frac{4}{11}$

A difference of about $2\frac{2}{3}$ per cent. in favor of primary amputations of the upper extremities, and no difference between primary and secondary amputations of lower extremities in American civil hospitals.

On comparing military with civil surgery, we have hardly any difference in the mortality in primary amputations of the upper extremities. But in secondary amputations of the upper extremities, we have a difference of 8 per cent. in favor of civil surgery. In primary amputations of the lower extremities, we have a difference of 16 per cent. in favor of military surgery. But in secondary amputations of the lower extremities, we have a difference of 12 per cent. in favor of civil surgery.

CONCLUSIONS FROM THE ABOVE.

1st. That primary amputations of the upper extremities are equally successful and to be preferred both in military and civil surgery.

2d. That, in military surgery, primary amputations of the lower extremities are twice as successful as secondary.

3d. That in civil surgery, (i. e. in the American hospitals,) it is immaterial whether primary or secondary amputations of the lower extremities are resorted to.

4th. That secondary amputations of the upper extremities in civil surgery, are 8 per cent. less fatal than in military surgery.

5th. That secondary amputations in civil surgery, are 12 per cent. less fatal than in military surgery.

In the above conclusions, all that is said of civil surgery embraces only the hospitals of Boston, New-York and Philadelphia. But by adding together all the information we have been able to obtain with regard to amputations of the *lower extremities* in civil hospitals, and comparing it with the result obtained in military hospitals, we have

	Primary.		Secondary.	
American Hosp.	45 cases,	17 deaths.	44 cases,	3 deaths.
North Liverpool Hosp.	23 “	20 “	9 “	4 “
University Coll. Hosp.	5 “	2 “	42 “	5 “
	73 “	39 “	95 “	12 “

A mortality in primary amputations of lower extremities in civil practice of $53\frac{1}{2}$ per cent., and of $12\frac{2}{3}$ per cent. in secondary amputations. This gives us 32 per cent. in favor of primary amputations in military service compared with civil practice, and 36 per cent. in favor of secondary amputations of lower extremities in civil surgery. We also find, that there is a difference of 41 per cent. in favor of secondary amputations in civil surgery over primary, and a difference of 9 per cent. in favor of secondary amputations of civil practice, compared with the primary amputations of military surgery.

We may therefore conclude, *that, in military practice, primary amputations are to be preferred; that, in civil practice, secondary amputations are to be preferred*; *and that the secondary amputations of civil surgery are more successful than the primary of military surgery.*

This result is important, and if true, is subversive of the commonly entertained notions upon the subject of amputations, and must lead to a change of practice.

There must be causes at work which make this distinction between military and civil surgery, and we must seek for them among the peculiarities of temperament, age, health and circumstances with which the different individuals may be surrounded. The soldier is accustomed to see wounds and is not surprised when he receives them. Soldiers are young and rarely beyond middle age. They are remarkably free from bodily infirmities, and when on the march or able to do service, are in the highest degree strong and healthful. The opposite of this is found in the laboring population of large cities. Often badly fed or overworked, or with constitutions impaired by drunkenness, their vital powers are apt to sink immediately or continue long depressed after any severe accident. In battle, too, there is great excitement. The hope of victory, the glory of an honorable wound which will create respect and sympathy the more maimed the soldier may become, the certainty of a pension or a support for himself and family from government, all tend to tranquillize the mind and to render the soldier better fitted to bear accidents and the operations that are required. But in civil life, the laborer sees, in his accident, the loss of employment upon which himself and family depend. There is in it no excitement, and a loss of a limb may consign himself and family to the Almshouse. It is not wonderful then, that he should sink under the accident and the depressing mental emotions that must accompany it.

In civil life, most of the accidents that necessitate amputation are caused by lofty falls, or by being knocked down and run over by railroad cars and other heavy carriages, or by being whirled around by machinery, which not only break bones but produce general contusions to a greater degree than is likely to be met with in gun-shot wounds. In riots and insurrections there is added to the above-depressing causes the danger of legal punishment. This was well observed last year in Paris, when many of the patients, who were convalescing, sunk and died or met with relapses, on being removed to the prisons or on being interrogated in the hospitals by the civil authorities. It is not improbable that in the Astor Place riot, these cause of depression had much to do with the dreadful mortality that followed all operations.

We believe that the remark of Wiseman to amputate immediately "when the soldier is in heat and in mettle," contains a great truth, which fully accounts for the success that military surgeons have found in primary amputations, and *in cases of accidents unless we find this brave, cheerful and vivacious spirit we should hesitate to operate.*

There is another reason which obliges army and navy surgeons to resort to primary operations, and which makes them preferable to secondary—this is that there are rarely any permanent hospitals for the reception of the wounded near to the scene of action, and if tossed about in ships or in wagons with badly broken limbs, lives would be likely to be compromised from wounds which in civil life might be easily cured.

The mortality in different countries is very different. In the Parisian hospitals it is far greater than it is in any other part of the world. It is not easy to enumerate all the causes which there prevail to produce this result, but some of them may be found in the close and crowded wards, the imperfect ventilation, the curtained beds and the system of diet, which being established by government cannot at will be altered by the surgeon to suit the particular case.

Some climates, no doubt, are more healthful than others. Thus Algiers and Egypt have become noted for the success that has followed wounds. The same country does not, at all times, possess an atmosphere or climate equally propitious to the wounded, this is well shown by Dr. Norris, who has published the following table, curious for its variations in the mortality of the different years, from 1830 to 1834.

1st of Jan. 1830	to 1st of	Jan. 1832,	1	death in	11	ampu.	9	per ct.
“ 1832	“	1834,	7	“	14	“	50	“
“ 1834	“	1836,	8	“	15	“	53⅓	“
“ 1836	“	1838,	5	“	15	“	33⅓	“
“ 1838	“	1840,	1	“	24	“	4	“
			22		79			

A mortality of about 27 per cent. and a varying mortality of from 4 per cent. up to 53⅓ per cent. This is confirmatory of the remark made by Roux, that a series of good or ill-fortune may, at different times, attend the same surgeon's practice.

It is very generally conceded that amputations for chronic affections are the most successful of any, and that the youth of the patient has a strong influence on the result, and that the mortality increases with the age.

In the Archives Gen. de Med., 1836, we have a list of 69 amputations upon adults furnished by M. Gendrin, with the following conclusions:

1st. That the most success has followed where the debilitating cause had existed for some time previous to the operation, thus in 24 amputations 15 recovered, 9 died, a mortality of 37½ per cent.

2d. That the next most successful were, when the debilitating cause had existed for a short time; which did not require amputation at first but did subsequently. Thus in 11 amputations there were 4 cures and 7 deaths, a mortality of 63⅗ per cent.

3d. The chances of life were slight after amputations in vigorous individuals immediately after accidents. Out of 8 primary amputations, 1 was cured and 7 died, a mortality of 87½ per. cent.

These results are strongly in favor of secondary amputations in civil practice. To contrast with the above M. Gendrin gives us twenty amputations in children for chronic diseases, and all recovered.

Statistics have been so imperfectly kept or so meagerly published, that we cannot concentrate many rays of light upon one point. The history of modern amputations cannot be satisfactorily traced farther back than the time of Ambrose Parè, when ligatures for arteries were first employed. Before that time amputations were occasionally resorted to ; and even in Galen's time were performed for mortified limbs, but only through the mortified part. Surgeons were deterred by the fear of hemorrhage. The ligature, and still later the tourniquet seem to have rendered surgeons more bold and amputations more numerous than necessary, and this continued to be the case until the 18th century, when LeDran and Bromfield protested against the frequency of these operations. Down to the present time there has been a general dissatisfaction felt with the results of amputations, and a growing impression that they are too often resorted to. If we are not mistaken too, there is a prevailing feeling of regret that surgery has not done more to save life and limb.

There are some accidents, such as the loss of a limb by cannon-shot, or machinery, or the rupture of a large artery, which, without a question, require immediate amputation. But compound fractures do not in all cases or even generally demand amputation.

It is much to be regretted that the treatment of wounds, or rather the natural history of wounds, has not been more clear and definite. There are many questions which are still un-answered and which the published information from the different hospitals does not solve. We would wish to know, in any given case, what might be the nature of the wounds, the number of deaths from shock in the first 24 hours, the number that followed subsequently from the accident without operation, the members operated upon, and the mortality in each, and finally the number of recoveries, with their limbs. We look back with hope to the period beyond the discovery of the ligature, and can find nothing to satisfy us, and the information from modern hospitals relates more to operations than to recoveries or to the establishment of clear and definite rules of treatment. Much is vague and obscure. Good and bad practice is mixed up together, and the errors of the preceptor are still perpetuated by the pupil.

The check given to operations in France by M. Malgaigne, must be of great advantage to surgical science, for whether he is correct or not in his conclusions, the great experiment of endeavoring to save limbs will add much to positive knowledge upon the subject of wounds in general.

The statistics furnished from hospitals have left the impression that most, if not all compound fractures of the limbs have been amputated. In most hospitals you find many amputations and little said of compound fractures. In some you will find but few amputations, and the majority of this few terminating fatally, and this extraordinary mortality may be pointed at as an instance of unsuccessful result from amputation. But on inquiry we may find that the operation was performed only in the desperate cases, and that the success in saving limbs was unusual and deserving of credit.

As an approximation to the useful kind of information to be derived from the statistics of compound fractures we will present the analysis we have made from the cases in the Mass. Gen. Hospital. They were collected by Dr. Moreland, and published at the end of Dr. Pierson's Annual Address before the Mass. Med. Society.

From 1821 to 1845 there were 367 fractures in all. The compound fractures of both bones of the leg were :—

33 Cases. Of these 14 died.
6 died in 24 hours.
3, no particulars mentioned but their deaths, probably
— died the first 24 hours.
9 deaths the first 24 hours.
5 more died in from 7 to 19 days following the accident.
—
14 total deaths, a mortality of about 42½ per cent.

Of the 33, 10 were amputated, 3 recovered, 7 died.

Of the amputated 5 died in a few hours after operation.
1 " 9 days,
1 " 13 "
—
7 deaths, a mortality of not amputated of 70 per cent.

Five died, as it will be observed, of the shock of the accident and operation combined, and two about the commencement of the suppurative period.

Of the 33, 23 were not amputated, 7 died, a mortality in the non-amputated of about 30½ per cent.

Out of the whole number 19 recovered, 3 without their limbs and 16 with their limbs.

This accident to both bones of the leg is very severe, and one that is usually thought to require amputation. We would have wished to have instituted some comparisons, in order to show whether or not the proportion of recoveries, without operation is, as appears to us, unusually great. But the data furnished by other hospitals is too obscure for our purpose. The number of deaths which took place the first 24 hours seems to indicate that the body generally was injured as well as the leg; and in such cases, where amputation is often imperatively demanded, we must attribute the mortality, in a great part, to the severity of the general injuries and not wholly to the operation.

There were 12 cases of compound fracture of the thigh in the Mass. Gen. Hosp., some of which were comminuted.

3 were attended with fractures of the tibia and fibula.
1 " " patella.
2 " " forearm.
6 compound of femur only.

Total, 12

Of these, 5 recovered, 7 died, a mortality of 58⅓ per cent.

OF THE RECOVERED.

1 Union took place in 36 days, but at the expiration of a year was only relieved.
1 Union in 52 days, a piece of bone remaining.
1 Union in 42 days,
1 No particulars mentioned.
1 Amputated.

OF THE DEATHS.

2 were after amputation.
1 in 3 days.
1 in 5 "
1 in 18 "
1 in 30 "
1 in 135 "

There were three amputations and two deaths, a mortality of 66⅔ per cent., or in other words, one-sixth of the whole number died, after operation. Omitting the amputated, and we have four who recovered with their limbs, which is two-sixths of the whole. Baron Percy has calculated that not more than one-fifth recovered, and Guthrie that not more than one-sixth recovered so as to have useful limbs, and that two-thirds died, whether amputation was performed or not, and that the limbs of the other one-sixth were useless and painful. In Holland, in 1814, out of eight of these severe accidents not amputated, one only recovered, and this with a useless limb. Dr. Hennen agrees with Mr. Guthrie, and even includes officers. According to his experience, not one has done well where amputation was deferred, and when performed, two out of three died.

Of the above 12 in the Massachusetts General Hospital, we have, including one amputated, five recoveries. This is much greater than that furnished by the army surgeons.

The mortality in bad compound fractures of the thigh are dreadfully fatal, and the fear of future evils and death has, no doubt, induced surgeons to adopt the military rule, and to operate at once. But yet, according to the expositors of the rule, amputation does not lessen the mortality.

The late Astor Place riot has added to our experience in gun-shot wounds, and the uniformity with which death followed amputation, has attracted general attention, and led us to inquire if there might be no alternative, and whether a better fortune might not have attended a different treatment. We have seen three compound fractures of the thigh from the riot, and since then a gun-shot wound of the knee-joint. All were amputated, in the New-York Hospital, and all died. We will speak more of these cases presently.

We have other evidence that compound fractures of the thigh, and wounded joints, can be recovered from, and although it may be objected that the publication of such cases leads to a lamentable loss of life, by throwing doubt upon the established rule of practice, we would reply, that these cases of recovery have now become so numerous, that all doubt in respect to their curability is removed, and a hope indulged that a clearer insight into their peculiarities and treatment may render their mortality much less than that from amputation.

In 1830, in M. Velpeau's wards, out of eight or nine compound fractures of the thigh, two recovered without amputation, three with secondary amputation, and the rest died. Five out of the nine recovered. Now, this plan of treatment shows an encouraging preservation of life. In 1830, Dupuytran saved one limb thus fractured, and Lisfranc two. Dr. Hennen mentions several recoveries; Boucher, one; Ambrose Pare, at least one; and many more are scattered through treatises on surgery.

In examining the cases of the wounded in the Parisian hospitals, during the revolution of June, 1848, which have been published by Geo. D. Gibb, M. D., we have collected twelve cases of compound fracture of the thigh, which were subjected to treatment, as follows:

1st. Compound fracture; union, with shortening; no splinters of bone extracted.

2d. Aged 15; union, with shortening; no splinters extracted.

3d. Union, with shortening; no splinters of bone or delay in healing.

4th. Union, with shortening; no splinters of bone.

5th. Union.

6th. Did well.

7th. Underwent secondary amputation.

8th. Did well for ten weeks, and then sunk and died.

9th. Did well for two months, and then died.

10th. Secondary amputation—death.

11th. Died in a month.

12th. Case of Gen. Demesme, died of purulent absorption, after being well enough to go about the garden.

In addition to the above, we have

1. Fracture of trochanter and ilium, ball and splinters removed—did well.
2. Ball traversing the knee-joint—cured without anchylosis or any bad symptom.
3. Ball from behind, traversing knee-joint—did well.
4. Ball lodged in knee-joint, removed—anchylosis.
5. Ball lodged in knee-joint—death.

We have thus twelve cases and six deaths in compound fracture of the thigh, where an attempt was made to save the limbs, and if we compare this result with the success after amputations, it will be found to be as gratifying as it was unexpected.

It will be declared that these cases were remarkably well suited to the attempt made to save them. We admit this to its full extent, but would invite attention to the peculiarities manifested by each, because we believe that the more other cases are made to resemble these, the more successful the treatment will be. We would endeavor to ascertain what it was that made them so favorable.

Four of the above cases, it is stated, recovered *without any splinters of bone, or delay in healing, from suppuration.*

In all cases of compound fractures, and especially those made by musket balls, the wounds in the soft parts are narrow and irregular. Pus accumulates, and is prevented from being freely discharged. It consequently dissects up the muscles, forms abscesses along the limb, or separates the soft parts from the bones, which may thence become necrosed. The inflammation which precedes the secretion of matter is deeply seated and may become excessive from the sharp and irritating extremities of the broken bone or from numerous spiculæ of comminuted bone irritating the surrounding muscles. The inflammation may be so great as, of itself, to destroy life; or it may extend to the veins and lymphatics. Excessive suppuration may follow, which may extinguish life or necessitate secondary amputation, or the patient may die from purulent absorption. These are the dangers, and in Paris the period of the greatest peril was found to be from the 8th to the 15th day.

In the above cases the discharge was slight, because there was an absence of spiculæ of bone, and the matter which did form, found a ready passage through the openings made by the entrance and exit of the ball. They were indeed as favorable as any compound fractures could well be. But they are invaluable, for their short history contains within itself indications of treatment, which if applied to the more complicated and severe instances of this accident, may possibly render them comparatively mild and equally manageable.

To turn again to Dr. Gibb's cases, we find that five were wounds of the knee-joint, the most dangerous kind of wounds, and yet that three recovered without anchylosis or bad symptom, that one recovered with anchylosis, and that only one, where the ball had lodged, died. This is a most unexampled result, and if added to the compound fractures would make seventeen cases, of which seven only died.

Dr. Hennen has known of recoveries from wounds of the knee-joint, and his experience had informed him that a large wound is much safer than a small one. Dr. Batchelder has met with an extensive wound of the knee-joint, made with a drawing-knife, which recovered without a bad symptom. The number of recoveries has now become so numerous that most practitioners of experience have met with some instances.

In these cases, and those of Dr. Gibb, the conditions of recovery were the same. The wounds were so large that the pus escaped freely without any impediment. In Dr. Gibb's the ball traversed the joint, and the matter had two openings for its escape, and did not stagnate in the joint, to excite constitutional irritation.

From these cases, then, a rule of treatment is proclaimed with emphatic force, and it ought to be accepted and practised upon. This rule is, to remove all causes of irritation, all broken pieces of bone, and give a free exit to the pus. One large opening may be sufficient, but two openings like those made by a ball in traversing a limb, are better. And we may infer that if the wound should not be large enough that we may make it so with the knife ; or if the matter should accumulate, from the opening not being dependent enough, that we may make a counter opening, and even lead a seton through the limb, in order to drain off the matter as fast as it is secreted.

By the earlier surgeons, we have been directed to remove pieces of bone. But latterly, in English surgery, it has not been generally enforced as of very great importance. Hunter and Abernethy are not in favor of it, and even Mr. Guthrie, who knew all the dangers of their presence, and the years of inconvenience that sometimes followed from dead bone being entrapped by the new callus and remaining as a sequestrum, limits the rule to cases where the fragments are loose and detached, and advises us to allow them to remain, for they will ultimately separate by ulceration, and come away in the discharge. Since the last revolution in Paris, the French surgeons have expressed opinions in this subject. M. Jobert is for letting them alone until, by suppuration, they become easy of removal. M. Velpeau says, "make incisions if the bones are loose, but as many of them are still attached to the periosteum, and some very small, we may wait for their separation." M. Velpeau does not approve of incisions to prevent strangulation. M. Roux limits incisions to the removal of balls, splinters, and the tying of vessels. He believes it to be good practice to excise a portion of bone in wounds of the joints, although this is usually restricted to wounds of the shoulder-joint. But he admits, almost inadvertently, that it may be done for fractures in the middle portion of a bone.

The treatment in Paris has been, for the most part, indecisive and of the "laissez faire" kind. But it is cheering to meet with one surgeon who has not followed the usual routine. M. Bauden, surgeon of Val de Grace, and formerly with the army in Algiers, has given us some striking practice, and what is better, some general rules. He advises preparatory incisions, not the débridement to relieve tension, but fair incisions to the bone, for the purpose of removing spiculæ. He does not attribute his success in Algiers to the goodness of the climate, but to his peculiar method of treatment, upon the success of which the late revolution of 1848, has removed all doubts. His rules for treatment are as follows:

1st. Not to make any débridement, (freeing of parts by incisions.)

2d. Endeavor to make a complicated wound simple, by removing splinters of bone.

3d. Apply cold water and even ice.

4th. Endeavor to keep the inflammation strictly local, and thus prevent its extending to the viscera.

5th. When the upper extremity is comminuted, *remove the splinters and make such incisions of osseous matter as may seem advantageous, and reserve secondary amputation as a last resource.*

6th. When the femur is shattered and splintered, amputate at once. When tibia or fibula, remove the splinters and give the limb a chance. When both bones are fractured, as a general rule, amputate immediately.

7th. When wounds are suppurating, isolate the patients, and if necessary, place them in tents or in huts, in the open air.

By the application of ice he has saved, as he says, two cases out three, where the knee-joint was opened. Of fourteen primary operations, three died. Out of six secondary, six died. *Twenty-five soldiers who were shot in the limbs, and from whom he immediately removed all the splinters, all recovered.*

His remarks upon the removal of splinters are excellent and conclusive so far as they go. But we do not see why a principle so remarkably successful, should not be of universal application to all limbs. We shall presently be informed that it has been applied to the treatment of compound fractures of the leg, and that the fracture of both bones does not, as M. Bauden supposes, necessarily require amputation. M. Bauden attributes the cure of two cases of wound of the knee-joint to the application of ice. We do not doubt its usefulness, but may be allowed to question whether it or the peculiar nature of the wound, with a double passage for the exit of matter, had most to do with the recovery.

It may be suspected that I have certain reserved opinions on the treatment of compound fractures. I am anxious to confess that I have derived them from my friend and preceptor, Dr. Wm. J. Walker, of Boston. Dr. Walker has presented his views in his annual address before the Massachusetts Medical Society, for the year 1845. His rules of treatment are proved to be correct by cases from his own practice and by an array of cases from such men as Martinieré, Cannac, Boucher, etc., until their very number imposes upon us, and we are forced to admit the simple but certain points of practice which he inculcates. The cases he cites are rare and remarkable for their severity, and any one of them, if told to us as an instance of recovery, would excite only surprise as a lucky and unexpected cure. But when the simple principles of cure are explained in each, and proved to be applicable to all, we are compelled to confess that amputation ought to be a last resource only, in bad compound fractures.

Dr. Walker's rules of treatment are as follows:

1st. That all membranous or tendinous structures which obstruct the removal of foreign bodies or unduly confine or strangulate the soft parts, when swollen by inflammation, or which, by their presence, would be likely to prevent the free discharge of matter, should be freely divided.

2d. That such dependent orifices should be preserved or counter openings made, as will, when aided by position and dressings, secure the free discharge of matter which might otherwise stagnate within the wound.

3d. That portions of bone protruding through the teguments, and which cannot easily and without violence be restored to their place, should at once be removed by the saw, and all foreign bodies, loose portions, and shivers, should be promptly extracted from the wound.

4th. That great pain, inflammation, or nervous symptoms, depend rather upon peculiar complications than upon the extent of the wound, and that they indicate great danger unless rightly understood, appropriately treated and relieved.

To the above we may add, that the extent of the wound in the skin or muscles, or extensive loss of substance in the bone, sometimes to the extent of from three to five inches, does not necessarily require amputation, provided the great nerves and blood vessels are uninjured. On the contrary, that in many dreadful wounds, a loss of substance in the soft parts will often secure our patient's safety, for the pus will then flow away as fast as it is secreted.

The dressing in these severe compound fractures should be loose, so as not to constringe the limb, and all that is usually required, is an easy position on a pillow, without splints or bandages at all. That destruction of tendons are grave accompaniments, because they may prevent the recovery of a useful limb. *That all compound fractures will unite as readily as simple ones, provided that all complications are removed.*

We will now give a summary of five cases from Dr. Walker's practice, as briefly as possible without omitting important details, in order to show the severity of the wounds to which these principles have been applied.

Case 1.—*Compound Fracture of the Humerus.* ——, aged 6 years, was caught by a horizontal axis. His apron, arms, and body, rolled around it and made to revolve with it. The radius and ulna of the left side were broken from the elbow to the wrist, into a great number of small fragments, none of which perforated the skin. The right humerus was fractured and comminuted nearly from the elbow to the shoulder-joint. The fingers could be passed through the limb in almost any direction. The skin, cellular membrane, and muscles, torn and lacerated. But the trunks of the arteries, veins, and nerves, were not divided.

Treatment.—Nearly one-half of the humerus was removed in pieces. Both limbs were placed in tin splints and laid on pillows. No unpleasant symptoms followed. In three months the bone had united. He then met with a fall, and the bone was broken again, and he recovered at the expiration of eight months from the original injury, and after an exfoliation of half an inch of the entire shaft of the humerus. He acquired a free use of both arms, and the broken humerus was but little shorter than the other.

Case 2.—*Compound Fracture of the Humerus, &c.* ——, aged 4 years, when lying upon the ground, was trodden upon by a heavy horse, and a compound fracture of the humerus, one and a half inch above the elbow, produced. The skin was so lacerated that the wound extended obliquely nearly around the whole limb, and there remained a portion of integuments, one and an half inch wide, connecting the arm with the forearm. This portion of skin was just in front of the inner condyle. The extensor muscles, excepting a small portion near the inner condyle, were divided. A bundle of blood-vessels were exposed, enveloped in their sheaths, for the space of two inches. Both fragments of bone protruded through the wound. Recovered with a perfect limb.

Case 1.—*Compound Fracture of Tibia and Fibula,* (Dr. Walker.) ——, a ship carpenter, of large stature, weighing more than two hundred pounds, fell from a scaffolding 25 feet high, and alighted on his feet. A compound fracture of the left leg was produced. There was a large lacerated wound midway between the foot and knee, and lying transversely across the wound. A piece of bone, constituting three inches of the entire shaft of the tibia, terminating with ragged extremities, which made its length from point to point about five inches. These pointed extremities were imbedded in the soft parts. The lower portion of the tibia was crowded upon the transverse fragment and so firmly bound it in its unnatural position that considerable force was required to set free one of the pointed extremities. The fragment was found strongly adhering to the interosseous ligament and muscles. These adhesions were divided with the knife, and the fragment removed without hemorrhage. The fibula was broken about its middle, and its fractured ends were felt overlapping each other. There was but little hemorrhage. No severe or febrile symptoms arose at any time. The wound granulated and filled up without any exfoliation of bone, or deposit of pus.

After the cicatrization was complete, the limb was found to be about two inches shorter than the other. In three months he began to use the limb, and recovered with a good leg.

CASE 2.—*Compound Fracture of Tibia and Fibula*, (Dr. Walker). A teamster, aged 27, healthy constitution and temperate habits. A heavy block of granite fell upon the anterior edge of the left tibia, immediately above the ankle, while the calf of the leg rested upon the flat surface of another stone. The falling stone struck the leg with one of its square angles, and made an opening, commencing at the instep and extending upwards fully six inches, and its width was about the same. Nearly an inch below the surface, at the bottom of the opening, there was a mass of bony fragments, constituting a part of the entire shaft of the tibia and forming fully three inches of its length. The soft parts were so much contused and flattened that the limb, viewed from either side, had the appearance of being nearly severed asunder.

By working with the fingers, forceps and knife, thirty-eight pieces of bone and other foreign substances were removed, and room obtained to examine the other tissues, and to estimate the chance of its being restored to health.

The lower and articulating end of the tibia was found to be a half inch in length, and broken short off at its upper end. But it retained its natural position and connections with the astragalus, without any apparent opening of the joint. The fractured ends of the tibia were three inches apart. The presence of sensation in the foot was proof that the nerves had not suffered irreparable injury.

About four inches from the lower extremity of the fibula and at its posterior edge, were two small openings, communicating with the fractured fibula, and through which spiculæ of bone, which had escaped the first search, were subsequently extracted. The tendons were denuded, but not divided or extensively lacerated, and there was but little extravasation of blood. The circulation in the veins and capillaries was much embarrassed, and no pulsation was felt in the anterior tibial artery, and from the position of the wound and the pulsation never afterwards having returned, this artery was supposed to be divided. There was but little arterial hemorrhage. Not to mention all the reasons which led to the attempt to save the limb, we will mention only Dr. W.'s concluding remarks: "Experience and observation had taught us, that when excessively severe nervous symptoms occurred after compound fractures, especially near a large joint, the external wound had almost always been small, the sharp points of bone having merely passed through the skin and fasciæ, or else had been driven in among the membranous parts; that fever had usually occurred in such wounds from the mechanical irritation of points of bone or by matter pent up by membranous structures and burrowing deeply within the limb."

Treatment.—A counter opening was made by the side of the tendo-achillis and a seton introduced to prevent its healing; the wounded limb laid upon a pillow and allowed to rest upon the calf and heel. No splints or bandages were used. The foot was kept in its position by a frame of wood, and a soft bolster placed along the limb in order to give it gentle support. *During the first ten days,* (that is, during the inflammatory period,) *there was neither great pain, inflammation, nor fever.* He finally recovered, with a limb two and a half inches shorter than the other. There was a slight bend forwards at the seat of the fracture. The ankle was free from stiffness. At the end of eight months he could walk two miles without being tired. He wore a high-heeled shoe. In less than a year recommenced his business as a teamster and was able to perform a good day's work.

Case 3. *Compound Fracture of Tibia and Fibula,* (Dr. Walker.) ——, 9 years old, while sitting upon a wharf with his feet hanging over the water, was struck by a steamboat. Soon after the accident he was in great pain and in much nervous excitement. The tibia and fibula were both broken midway from the foot to the knee, and their fractured ends projected forwards, forming an angle of 140 degrees. The periosteum was wanting on the front of the broken bones to the distance of three quarters of an inch. All the extensors, excepting such as arose from the periosteum, were severed as if divided with a dull knife, their ends lying about two inches apart. The skin, cellular membrane and fasciæ were abraded and torn from a surface, the upper margin of which was along the head of the tibia, from the inner hamstring to the insertion of the ligament of the patella; from this point the outward margin reached to the edge of the fibula, opposite the fracture. The inferior margin extended across the limb anteriorly, downwards to the anterior edge of the tibia, then posteriorly upward to a point in the calf of the leg opposite to the fracture. The entire width of sound skin on the back of the leg did not exceed one and a half inches. The fingers could be passed behind the broken bones, between them and the muscles. As the boat rebounded from the wharf a piece of flesh was seen to drop into the water. No pulsation could be felt either in the anterior or posterior tibial arteries; the leg and foot retained some sensation, but were cold to the touch.

The limb was placed upon its outer side upon a pillow, and it was agreed to wait awhile to ascertain how far the circulation would be restored. At the end of five hours he was more free from pain, his foot and leg warm, and both tibial arteries pulsating distinctly. It was determined to attempt to save the limbs, and for the following reasons. That although *the limb was more than half divided, yet the trunks of the most important arteries, veins and nerves were unhurt.* That the loss of skin was probably greater in appearance than in reality, and that a sufficiency could be borrowed from the neighboring parts. That from the nature and extent of the wound there was no danger of the lodgment of matter and its consequences. That the joints and tendons being unhurt we had reason to believe that, provided union of the bones could be obtained, he would recover a useful limb. All the advantages of air, ventilation and quiet could be obtained, and the parents were firm and intelligent enough to coöperate in executing any proposed measures.

No splints were used in the dressings. A small bolster was placed on the outside of the foot, to preserve the proper direction. The leg rested partly on the outside and partly on the heel. The wound was lightly dressed with lint and cerate, &c., &c.

The limb continued comfortable. Suppuration took place on the seventh day. At the end of three weeks granulations could be seen springing up from the ends of the bones. After this the wound discharged sanious matter, and he became delirious and had diarrhœa. These were, however, controlled, and throughout the treatment there was no occasion for splints, bandages, or apparatus of any kind.

A small exfoliation took place in 60 days, from the upper fragment of the tibia, and at the end of four months there was a larger exfoliation from the lower fragment.

The bones united. The skin drawn upwards from the foot and downwards from about and above the knee left comparatively a small cicatrix considering the nature of the wound. There was but little stiffness about the joints. The leg was of its proper length, and the foot had its natural direction, and fast regained its wonted powers. About a year after the accident the wound was entirely healed, and with the aid of a small stick he could walk with but little limping.

It is a remarkable fact that all the cases that Dr. W. attempted to save, recovered with the use of their limbs.

Mr. Guthrie has stated that an arm will endure almost any amount of injury, even to the division of the artery, without requiring amputation. His treatment is similar to that of M. Bauden's, and his experience, in connection with the twenty-five cases of M. Bauden, and the two severe cases from Dr. Walker, incontestably establish the rule that we should rarely if ever amputate the upper extremity for injuries. When presenting statistics of amputations of the limbs we barely alluded to the upper extremity, because the information given by the different hospitals was obscure, and because the reasons for the operation were unexplained. We have thought that this operation has been unnecessarily performed. At least, we think there are sufficient grounds for this suspicion, when, in any hospital, we find frequent amputations of the upper extremity resorted to.

Dr. Walker has done much to rescue the leg from amputation. His practice is an improvement upon that of M. Bauden, and the twenty cases quoted by him, in addition to what occurred in his own practice, also prove that bad compound fractures of both bones of the leg do not of themselves require removal of the limb.

Why then should not these rules which have been successfully applied to the treatment of compound fractures of the arm and leg be extended to the treatment of bad compound fractures of the thigh? The cases presented by Dr. Gibb prove how much can be expected when the cases are mild, i. e. when there are no spiculæ of bone. All that is left for us to do then, when the thigh bone is comminuted, is, as in the arm and leg, to cut down and remove the fragments, and perhaps, where the broken extremities of the fractured bone are so sharp as to be thrust by the contraction of the muscles into the soft parts, to turn them from the wound and saw off a portion of bone. Roux, we may remember, hinted at this treatment, and Mr. Guthrie, although for some unexplained reason, objected to incisions for the removal of fragments, admits that these incisions could be made on the outer side of the thigh without any danger of hemorrhage.

In all that we have said we are reminded of the remark of Hunter, that "the deeper the wound the more difficult must be the suppuration." And this must especially be true in compound fractures of the thigh, where so great a mass of muscles covers the bones. The greater reason then for our proposed method of treatment.

The fear of hemorrhage must be dismissed; the natural shrinking, which every one feels, from making large wounds in a novel practice must be laid aside before the principles we have been advocating can be reduced to practice, or the wounded retain their limbs, or even have a better chance of life than they would from amputations.

We would now refer particularly to four late cases of gunshot wounds,* not for the purpose of finding fault after the result of the operation has been known, but for the purpose of asking, since a worse fate could not have befallen them, if they had been treated in the way above recommended, whether a different fortune might not have followed.

CASE 1.—*Compound Fracture of Thigh.* ——, 19. Clerk. Shot during Astor-Place riot, admitted May 10th, 1849. The track of the ball was oblique from behind, forwards, inward, and downward. The posterior opening of the wound being at the junction of the upper and middle thirds, upon the outer and posterior aspect of the thigh. The anterior opening was at the middle of the anterior and middle aspect. A good deal of hemorrhage had taken place, and continued to recur during the night. The thigh was amputated the next day, and the middle of the shaft was found to be comminuted. The fracture did not extend two inches in length.

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* The particulars of the first three cases were furnished us by Dr. W. S. Bowen, from a paper read before the N. Y. Pathological Society.

Case 2.—*Fracture of the Femur, wound of Knee-joint.* ——, 30. Wounded during the riot. The ball entered the left knee, just above the popliteal space, and passed through the knee joint and lodged against the integuments just below the patella. She had lost a large quantity of blood (was the artery wounded?) before admission. The limb was amputated May 12th, and she died May 15th. The patella was fractured in three pieces, and a longitudinal fracture extended from the joint, separating the two condyles from each other and from the shaft of the femur, which was broken transversely just below the junction of the lower and middle thirds.

Case 3.—*Fracture of the Femur.* ——, wounded in the riot. Admitted May 10th. The ball entered the right thigh, at its upper and anterior part, on a level with the trochanter major, and a little to the outside of the femoral artery. There was but little hemorrhage. The limb was amputated at the hip joint, on the 12th. The entire neck of the femur had been shot away. He survived the operation 12 hours.

Case 4.—*Wound of Knee Joint.* ——, a young man, attempted to get into a house, and was shot by the occupant in the right knee, with small shot. He was admitted into the hospital the next day. The patella was broken into several fragments, but the finger could not be passed into the knee joint. The anterior tibial artery pulsated freely. There was hardly any hemorrhage. The limb was amputated about 24 hours after the accident; he survived the operation about a week and then died of phlebitis. On examination of the joint one small shot was found loose in the joint, one other partially imbedded in one of the condyles, and the wad of oakum was found under the skin but external to the patella.

It is a serious thing to maim a person for life and it is very perilous to life to remove so large a portion of the body as is required in amputation of the thigh. Such an operation is a violent shock in addition to that caused by the accident, and at a moment when the whole soul is disheartened and depressed.

All of these patients took ether, and since M. Velpeau has discouraged the use of chloroform during the period of stupor, we may well ask whether it had aught to do with the mortality?

In looking at these cases one cannot withhold the remark, Of what use can it be for the surgeon to cut down upon the amputated limb and investigate the injuries? The patient's limb cannot then be restored to him, and the surgeon's errors cannot be remedied. A mere incision during life cannot make the injury greater. Why not, then, cut down upon the broken bone during the life-time of the patient, study the injury in all its bearings, and then, with clear knowledge of the state of things, decide whether an attempt should be made to save the limb or whether amputation should be at once performed? The mere examination of a limb, after removal, can add but little knowledge to any future case. Every wound has a character and history of its own, the study of which must direct the treatment.

The first of these cases had two openings, made by the ball, which might, as we have already seen, have been sufficient for the discharge of the pus. The comminution *did not exceed two inches in length*, and if an incision had been made during the life of the individual all this could have been ascertained and all the spiculæ removed. Nor do we see any thing to detract from a reasonable expectation of recovery unless it might be the hemorrhage, which, if from the femoral artery, is conclusive for amputation.

In Case 2d, (the woman shot through the knee,) we fear that nothing could have been done, for it would seem that the artery was wounded, although this is not positively stated.

The fracture extended through both condyles, and if we could only establish the rule that the larger joints can be excised to any extent, then nothing even in this case would preclude the hope of a favorable termination unless it might be the suspected injury of the great blood-vessels.

In Case 3d, in which amputation at the hip-joint was performed, there was no hemorrhage, and the extent of the fracture could have been ascertained by an incision during life, and the whole head of the femur and all the fragments of bone could have been removed. The wound being on the outer part of the limb could, by position, have been made dependent enough for the discharge of matter, and we cannot hesitate to admit that the chances of cure would have been a thousand times greater than after so dreadful an operation. Nothing in this case is said of the ball, or whether more than one wound was made by it.

In Case 4th, wounded with small shot in the knee, the full extent of the injury could have been ascertained by the removal of the broken patella before the operation. The artery, it was already known, from the pulsation of the anterior tibial, was uninjured, and the removal of the broken patella would leave a large and free opening for the discharge of matter. We must confess that this treatment of wounds of the large joints may look both bold and audacious. But on a faithful examination, the treatment is plausible and even judicious. Dr. Hennen mentions two cases of wounds of the knee where the patella was comminuted and the joint extensively opened, so similar to the last case in the New-York Hospital, that, under treatment, we should have hoped for it a like favorable termination. Dr. Gibb's cases fully prove the possibility of cure, and the principles of treatment we have endeavored to enforce in compound fractures, would also render wounded joints comparatively innocent. At any rate we should be glad to see so reasonable and so justifiable an experiment tried.

Having said so much about saving limbs, we may be asked when a limb ought to be amputated?

In case the great vessels, nerves and joints are uninjured, there is not an absolute impossibility of saving a limb. But as the attempt at cure is beset with dangers in itself and requires a long confinement to bed, which may produce bed sores and other troubles already alluded to, the question becomes one which turns chiefly upon the age, temperament, habits and strength of the patient, and the circumstances with which he may be surrounded; such as whether he can be supplied with faithful nurses, good medical attendance, and general comforts which his varying health may require.

Art. II.—*An Eclectic Essay on the Non-Pediculated Fibro-Scirrhous, Fibro-Cartilaginous, and Fibro-Calcareous Tumor of the Uterus.*

By Wm. C. Roberts, M. D., F. C. P. and S. of N. Y., Secretary of the New-York Pathological Society and formerly one of the Physicians of the Northern Dispensary.

The disease upon which this paper treats has many synonyms. By W. Hunter and Clark it is called the fleshy tubercle; by Baillie, the hard tubercle; by Bayle, "fibrous body;" by Hooper, the sub-cartilaginous tumor; by Andral, Boivin and Dugès, "fibrous tumor;" by Davis, the membrano-fibrous; by Mayo, the fibro-cartilaginous tumor; by Hodgkin, the scirrhous tubercle; by Burns, simply "tubercle;" by Ashwell, "the hard tumor;" by Lee, the fibro calcareous tumor; by Craigie, sarcoid tubercle; by Blundell, the indolent tubercular scirrhus of the uterus; by others, "fleshy tumor," &c.

Not one of these appellations is unexceptionable, and it is very difficult to assign to it one that is. The term "tubercle" may be correctly enough applied to it when small, as indicative of the characteristic form, but it is apt to lead to an erroneous idea of the mode of origin, and to cause it to be confounded with the scrofulous tubercle occasionally met with in the womb. The term "fleshy" is not a fortunate one; occasionally, yet not always, they become calcareous; all are not hard; all are not fibrous, but some are of a smooth, homogeneous structure, and then only can be correctly termed scirrhous. The nomenclature adopted by Blundell, is, I consider, particularly objectionable, for reasons which we shall hereafter assign.

If we were to judge by the superior importance which is attached to the consideration of pediculated polypi of the uterus in the treatises which come to us from abroad, their number, and the numerous cases they contain, compared with the attention hitherto bestowed on the disease in question, we should naturally be led to consider these as of much more frequent occurrence, and of a totally different nature. I shall hereafter mention that this latter opinion admits of much doubt, and that, at any rate, the question whether or not they be identical, is as yet unsettled; and if I may judge from the inquiries I have made, and the result of my own observation, pediculated polypi are not met with, in this city at least, so frequently as they would appear to be in other countries. Of non-pediculated fibrous tumors, I have met with a great number of cases, but with ample opportunities of observation, I have not, in ten years' practice, seen a case of pediculated polypus; nor did I ever see but one woman who had been affected with the disease. Up to the year 1828, Dr. Dewees had never seen a case of polypus, (On Females). I speak, in these pages, only of those tumors of the womb which exist within the abdomen; are attached to, or are contained within, or encroach upon the uterus, not pediculated, nor projecting beyond it. I shall consider them relatively to their number, shape, situation, varieties, and anatomical characters; the transformations which they undergo, their causes and mode of nutrition; the diseases with which they may be conjoined or confounded, the co-existing condition of the uterus, the age and circumstances at and under which they occur, the prognosis, diagnosis, symptoms and treatment.

The number of these tumors which is met with varies. A single one only may exist; in the case related by Dr. Francis, as many as nine were attached to the same uterus; Blundell says from 1 to 10 or 20.

The size to which they attain is also very various. From that of a pea, they have enlarged to the weight of (in one case said by Mayo to have been removed by Dr. Granville, I suppose by gastrotomy, the patient dying in 48 hours afterwards) eight pounds; in that by G. De Claubry, 30 pounds, being 35¼ inches in its vertical, and 29¼ inches in its horizontal circumference; in that by Kummer, (projecting externally by a pedicle only an inch thick from the fundus of the uterus,) 40 pounds, being 46 inches in circumference and 13 in diameter; in the case mentioned by McIntosh, 80 lbs.; in one of those by Dr. Francis, 100 lbs. (the tumor and its appendages,) the abdomen measuring 4 feet 8 inches in circumference. In *shape* they differ materially. At first they are usually globular, round or spherical, dependent very much, according to Boivin and Dugès, on the anatomical peculiarities of the structure in which they are situated, and ultimately are altered by compression and by the irregularity of their growth. "Being solid," says Bayle, "knobs are often found on their outer surfaces, and when of a certain size, they are almost always divided into several lobes or fissures, more or less deep," a fact useful in the diagnosis. "When large," says Lee, "they are unequal on the surface, lobulated, or divided by deep fissures, and arteries and veins of considerable size can be traced into their substance. Churchill mentions their being found hollow. Carswell observes, that when the cellular tissue is collected between the individual masses or smaller tumors, it gives to the entire tumor a lobulated character."

SITUATION. There is no part of the uterus at which these tumors may not be situated; at the fundus, os, front, back or sides. Dr. Blundell has a specimen of a single tubercle growing from the posterior surface of the uterus. Another, of a solitary one of great bulk, formed on the womb anteriorly. I have myself seen a solitary tubercle as large as a pigeon's egg, situated just above the neck, upon the posterior surface of the uterus; and another, smaller, situated in the parenchyma of the fundus uteri, and within a few days I removed a uterus from an aged female, on the anterior surface of which, in the same situation, under the peritoneum, were two small, flattened, fibrous bodies, and one on either side in the reflexions of the broad ligaments. The structure of these bodies was tough, nearly homogeneous, of a pearly white, and presenting a very imperfect fibrous arrangement;

they could easily have been felt through the vagina by the touch. This uterus was examined by my colleagues, Drs. Crane and Knox, of the Northern Dispensary. "I have recently," says Ingleby, "prescribed for four females, in each of whom a tumor, varying in size from a large nut to a hen's egg, has been formed in the tissue of the cervix." In one of Dr. Francis's cases, the tumor sprung from the fundus uteri, and they have been found filling its entire cavity. But independently of their position relatively to the uterus itself, we have next to inquire into it as it respects the component tissues of that organ. According to Andral, three classes may be made. In the 1st, the tumor lies upon the uterus, is developed in its cellular tissue, covered by its peritoneal coat, always growing into the abdomen, and never at the side nearest the wómb. In the 2d, the tumor is developed in the substance of the walls, or embedded in the proper tissue of the uterus itself; or, as Lee says, "developed between the layers of its muscular coats." These constitute the non-pediculated varieties, a rule, thus far, without an exception. "In the 3d class," says Andral, "the tumor is developed between the internal surface of the proper tissue and the lining mucous membrane of the uterus, which latter it pushes before it (and by which it is invested,) into the cavity of the womb, or even into the vagina." These are the polypi of authors and are always pediculated. It is an important fact, that frequently, according to Lee and Churchill, and *always* according to Blandin, they have a more or less perfect covering or stratum of uterine fibres, for to the inclusion of these in the ligature, may be attributed the unpleasant results which often follow the operation for their removal by this method ; hence the latter author gives the preference to excision.

When fibrous tumors belong to the second variety, they are, according to Boivin and Dugès, solidly united with the muscular tissue of the uterus and almost by continuity of substance. Often, however, they adhere by delicate filaments of cellular tissue or little vessels, and are so easily detached from the fibres of the uterus as almost to appear encysted.

Adhesions equally lacerable, connect the womb with those tumors which grow on its outer surface, besides which, the peritoneum forms a covering for them, *together with a true pedicle*, in which some vessels and cellular filaments are found. In opposition to the first of these observations, however, Bayle denies that they are ever united to the uterus by continuity of tissue, though sometimes closely adherent. Blandin remarks that they are sometimes surrounded by a dense fibro-cellular cyst; at other times plunged only into the cellular tissue, or situated between the fibres of the organ. A fourth class, not noticed by Andral, is constituted by those tumors which are developed within the cavity of the uterus, adhering to its inner surface by slender filaments of cellular tissue, and easily enucleable. (See particularly Davis' Obs. Med., 656.)

Of so-called "fibrous" tumors, there are three varieties: 1st. The membrano-fibrous, as they are called by Davis, not properly either fibrous or membranous, but sarcomatous and uniformly smooth and firm; or, as Mayo says, "sometimes more granular than fibro-cartilaginous." "At other times," says Lee, "they present a granular appearance, seeming to consist of a congeries of smaller tumors, each having a thin capsule of cellular membrane." The best description of this form of tumor, however, is given by Andral: "The truly fibrous are conjoined with others having no *real fibrous* structure whatever; being composed of a number of granules, surrounded each by a layer of cellular tissue, and divisible into still smaller grains, possessing each a similar investment. They bear a strong resemblance to those of the pancreas, and present three varieties of tint, red, white and yellow." Carswell thinks that this granular character depends on the intermixture of the cellular with small nodules of the fibrous tissue. Baillie appears to have known only this variety. He never speaks of fibres, but of a hard, whitish substance, intersected by membranous septa. Ashwell, in allusion to this variety of the disease, remarks that "the white membranous lines which traverse the tumor in every direction, and the hardness, are clearly such as to form the diagnosis of scirrhus from other diseases." Clark says nothing about fibres, but speaks of their being "single, or consisting of a congeries of smaller tumors, each with its own capsule, agglomerated so as to form a large mass."

2d variety; the truly fibrous. Upon this subject, Bayle must still be considered as our principal authority; and I shall use his language in describing them. "Fibrous bodies are, at first, fleshy, and paler according to the increase of their density. They are as soft as muscular flesh, and *of à red color;*[*] *when firmer, their color is white, gray or slightly yellowish.* When cut into, they are seen to be formed internally by distinct fibres disposed in bundles, twisted in every direction, and at various points, intermingled in an inextricable manner. The bundles or fibrous chords, are reddish, red, yellowish, gray or white, interlaced in all directions. Fibrous bodies scarcely ever present, internally, a perfectly uniform tissue, as might, at first sight, be supposed; a great number of lenticular, or fusiform points are perceived, denser than the surrounding tissue, and formed, sometimes by the interlacing of several fibrous bundles, sometimes by the union of a great number of converging fibres, which appear, in some sort, to be rolled around a common centre. The most dense point of the tumor, and the fibrous bundles also, offer at this period, no traces of the cartilaginous state. Between the fibres thus diversely interlaced, is seen a more or less abundant and very close cellular tissue, (on the quantity of which, according to Carswell, the density depends,) and often a few very distinct blood-vessels. Sometimes, at this period, the fibrous chords are yet red, and, as it were, muscular; at other times, parts, which are often soft, are seen still red, while others are white or gray, and much more uniform."

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[*] In reference to this observation, Dr. Lee remarks, that "although it may be the fact with a few rare examples of the disease, it is not uniformly so;" and that "the greater number of these tumors never exhibit a muscular or fleshy appearance at any period of their existence, but have a fibrous structure equally distinct when not larger than a pea, and when exceeding in magnitude the adult human head."

"They consist," say Boivin and Dugès, "of masses of tissue, now reddish, rather vascular, and much resembling the close muscular tissue of the uterus itself; sometimes whitish or grayish, sometimes mixed with cellular areolar spaces, knobs, or kernels of a yellowish-gray hue, often softer and often harder than the rest. The greater part of these masses seems composed of fibres, or coriaceous and filamentous laminæ, placed in irregularly concentric layers, rolled up into bundles, and interlaced in various ways. Sometimes the layers are so regular that the tumor seems formed by a successive deposit of new matter, whilst oftener, it would be thought to depend upon an expansion, in their length, of fibrous bundles confined within a circumscribed space, in which they must twist and writhe in various directions. The white, hard fibrous bodies are deprived, to appearance, of blood-vessels, or contain scarcely any in their outer layer. At least, injections have not been passed into their substance." The last opinion is opposed to that of Lee and Andral, who says, that "the fibrous species is composed of fibres rolled up and matted together; these bundles of fibres are divided into several lobes, separated from each other by loose cellular tissue, *in which the blood-vessels run.*" Blandin remarks, that "sometimes only, the vessels dilate in the middle of the tumor and form sinuses, the veins particularly." Ingleby relates that Dr. Montgomery had successfully injected one with very fine size. Carswell, however, says that "a few only of the minute subdivisions of the blood-vessels pass between the laminæ or bundles of fibrous tissue." The red form has received from Chaussier, the name of sarcomatous; the white, he calls albugineous; Lee, with regard to color, says that they have been seen ash-colored, slate-colored, or dark green.

One of the latest writers on the fibrous tumor, is Dr. Hodgkin, a very distinguished English pathologist. He states that it possesses "a well-defined, rounded figure, and a close, compact tissue, in which the structure, referable to the same type as the adventitious cysts assigned by him as the origin of diseases called malignant, is tolerably distinct, on a much larger scale than that generally observed in the scirrhous tumors in other parts of the body." They rarely, if ever, present any cavities, and acquire a much larger size than true scirrhus elsewhere. They never, or at most very seldom, pass into the stage of softening, or ulceration ; are confined to the uterus, and do not seem to be accompanied by any constitutional taint. Dr. Hodgkin observes, "that Dr. Ingleby had, in a late work, (Obs. Med.) denied their encysted structure, but that careful and patient examination will, he is satisfied, convince the accurate observer that these growths possess essentially the structure of compound adventitious cysts, to which the malignant heterologue formations are to be referred." The appearance of fibres which these tumors present when cut, is produced by the cut edge of the cysts of which the tumor is composed. Upon the external surface, when disembedded, we may perceive, not only the nodulous form, but portions of these cysts, although their density is unfavorable to dissection.*

The peculiarities, further says Hodgkin, belonging to scirrhous tubercles of the uterus, depend on the fact that it is naturally disposed to accommodate itself to a stimulus which excites to an increased supply of nourishment. It is no less remarkably calculated to yield to the distension of bodies progressively increasing within it. Moreover, it is a structure but little susceptible of morbid actions. Hence the new or adventitious growths have an abundant supply of nutrient fluid. Their enlargement meets with no violent or partial obstruction. But at the same time it is subjected to a steady, moderate and uniform pressure, which tends materially to diminish the relative proportion of the fluid parts, to which is owing the absence of cells and the firm and compact structure of the tumors.

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* In the note in the work from which these observations are cited, Dr. H. expresses the hope that Dr. I.'s specimens are preserved, with a view to the examination of the correctness of their different opinions. From a lecture of Dr. I.'s, since reported, we learn that Dr. H. has inspected these specimens, and is induced to reiterate his published opinions.

The opinions above expressed by Dr. Hodgkin, that these tumors never contain cavities, is opposed to that of Lee, Mayo, and to recorded facts. Lee says, that "cavities containing a bloody dark-colored, or gelatinous fluid, are sometimes formed in the central part of the tumor, probably by a process of softening which its substance undergoes. In one, imbedded in the walls of the uterus, removed from the body of a woman who died in the St. Mary-le-bone Infirmary, there is a considerable cavity, which contains a coagulum of blood." Mayo speaks of their having cavities filled with a brown, or reddish gelatinous substance. Roemer observes: "non valde raro, cavitates pure impletæ, in tumoribus fibrosis deprehenduntur; cujus generis casus sunt observatæ a viris doctiss. Caillard, (Prop. de Med. Thèses Par. 1833.) Cailhaux, Quiot, Hoin et Laumonier." In one of Dr. Francis' cases, the tumor contained a sac with three quarts of pus in it; and Ingleby observes, that "genuine pus rarely forms in fibrous tumors; but here I exhibit to you a fine specimen of healthy purulent suppuration in the interior of a fibrous growth, the walls of the abscess being in a creamy state. In a lady who died of inflammation previous to delivery, the interior of a tumor was so much disorganized as to contain almost a quart of purulent fluid." Dr. Hodgkin objects to the term "fibrous tubercle," as being inaccurate and fallacious, and favoring the belief that it is a disease sui generis, and distinct from tumors possessing malignity; and remarks that "their very frequent connection with unquestionably malignant affections, in other parts of the body, affords a very sufficient reason for placing them in the same family;" observations which are quite inconsistent with his previous assertion that they never softened, or tainted the constitution.

The third variety is the fibro-cartilaginous. According to Bayle, "when fibrous bodies pass into this state, the densest points first undergo the change, and insensibly the whole tissue becomes fibro-cartilaginous. Cellular tissue is then no longer distinguishable in them, and very minute vessels are with difficulty detected. But the points which were primitively most dense, remain not the less extremely distinct, and the fibres which characterize the tissue are yet very visible." Lee remarks, "that in either case, there is an increase of density until the whole or greater part of the mass becomes cartilaginous, or like intervertebral substance, without vessels containing red blood." "A section of a uterine fibrous body" says Blandin, "offers a striking analogy with that of the intervertebral cartilages; there is the same sofiness and humidity; the same gray color, the same increasing eccentric direction of the elementary laminæ, the same solidity and the same resistance. Roux, in particular, has given to them the name of fibro-cartilaginous productions, and we must admit that the appellation seems to us preferable to that which is generally adopted." McIntosh thus sums up the appearances presented on a dissection of a number o fthese substances. "Some consisted of a hard cartilaginous shell, containing an almost transparent fluid; others seemed semi-cartilaginous throughout, showing white lines running like radicles in every direction, intersecting each other, the interstices apparently containing the proper substance of the uterus; some appeared to be minute vesicles, or small sacs containing a fluid, occasionally giving somewhat of a honeycomb appearance; other tubercles approached very near to the nature of bone, while a few bore an exact resemblance to the proper substance of the uterus."

I am next to speak of the transformations which they undergo into fibro-*calcareous* tumors. This is what Bayle calls the "bony" state. I need scarcely observe that this term, when applied to the concretions that are met with in the uterus, is inaccurate: "but whether," says Lee, "all the concretions reported to have been met with in the cavity of the uterus, and called *calcali* of the uterus, or imbedded in its walls, are formed by deposits in the substance of fibrous tumors, and whether the substance of the uterus is ever converted into bone, it is impossible to determine.* "When" says Bayle, "fibrous bodies pass into the bony state, the ossification commences in the denser points of which we have spoken, and numerous partial ossifications are first formed; insensibly, the whole fibrous mass ossifies, and becomes very hard and heavy, but its fibrous structure may still always be recognised." Lee observes that "calcareous depositions are gradually formed in the substance of the tumor, until it is either partially or wholly converted into a concretion composed of carbonate and phosphate of lime. Most frequently the calcareous deposits are first formed in the central and most dense parts of the tumors, but not invariably, and in a few rare instances it encloses them like a nut-shell, having been deposited around the circumference. Injections do not penetrate the substance of tumors in this dense state. Fibro-calcareous tumors are like pumice-stone, soft and porous, and have been found as hard as marble and susceptible of polish." Andral states, that the transformation generally commences in the centre of the tumors, and that the surrounding tissue then assumes a remarkable yellowish tint. It afterwards spreads to the other parts, and sometimes, though rarely, invades the whole tumor. Hodgkin observes, "that, though they do not soften, their vitality becomes impaired or lost, and is accompanied with deposition of bony or earthy matter, converting them into an osseous structure little susceptible of change, and which may be retained for an indefinite period without injury to the uterus." According to Boivin and Dugès, the smallest tumors become the hardest, or else, the hardness arrests the development. Bayle thought that when once osseous they might become carious. B. and Dugès know of no actual case; but think they may become cancerous, but not after they ossify. Bayle says he never saw this happen. Tumors in each of these 3 conditions may be met with in the same uterus. Nauche relates that, in 1799, he examined a woman who died in the Salpètrière, of pneumonia, aged 60 years. The external surface of the uterus was entirely knobbed, and covered by eight fibrous tumors, some of which were converted into calcareous concretions. She had never suffered from them. (Chap. on Calc. Conc.) Davis states that a case had recently been seen at a London infirmary, in which fibrous tumors had become converted into melanosis.

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* The memoir by M. Louis, in the 5th vol. of the Mem. de l'Acad. Roy. de Chirurgie, A. D. 1774, on Calculous Concretions of the uterus, is still the most elaborate on the subject. I have carefully examined it, and do not find in it any evidence that M. L. was conversant with the fibrous tumor of the uterus, to the conversion of which into carbonate of lime, &c., are now attributed the "stones" which he seems to consider as owing to a change in the composition of some effused fluids. Their anatomical position he does not describe with any accuracy. In his Obs. 1st, "the body of the uterus was exactly filled by a white, rough and very hard substance." In the 8th, "a large stone filled all its capacity, which was considerably dilated by the foreign body." In the 9th, (that by Dr. Hody, in the Phil. Trans. 1736,) "a bony substance was enclosed in the uterus, and was so united to it that it seemed to make one body with it. The mass was ossified only on the surface, and below was firm flesh." The patient was 57 years of age, had had a child 27 years before, and died of asthma. The first two of these cases can only have been cases of transformed tumors, which, like those I shall cite from Davis, adhered only by cellular tissue to the inner surface of the uterus. The last, from the circumstance that its centre was sarcomatous, was doubtless a fibrous tumor undergoing the calcareous transformation. The following, also, was probably of the same character. "The late M. Petit showed me 10 or 12 stones which he had extracted, after death, from the uterus of the Countess of ——. The larger were imbedded in it, and projected into its cavity." Duncan (thus cited by Louis—Duncan Liddell. Path. lib. 2, ch. 14,) remarks that there are some which *adhere* to the tunics of the uterus, or its neck. Louis mentions a case reported in the Chronique d'Antonia, where a woman passed 3 before her delivery, and discredits it upon the ground that "sterility is a necessary effect of the presence of a foreign body in the uterus." But it may be true, notwithstanding. D. Chowne's case shows that fibro-calcareous tumor may coëxist with pregnancy, and Cruveilhier has mentioned a case of expulsion of fibrous bodies after delivery. In McIntosh's Practice are 2 cases; in one the calculus was expelled 24 hours after labor, and in the second was as large as a turkey's egg, and expelled before the child. "It is difficult," says Malgaigne, "to understand how fibrous bodies rupture their pedicles, and figure as true calculi, unless we suppose that they are so compressed by the walls which surround them, that the pedicle, and even the enveloping membrane ultimately disappear by absorption. According to Churchill, the researches of Bayle, Bichat, Knox, Breschet, and Andral, confirm this idea as to the origin of calculi, and he coincides with them, and considers the fact as well established. Nauche observes that the various fibrous or stony concretions, found in the peritoneum or womb, have almost all this origin and calculi of the uterus are certainly nothing else. For further information on this subject, into which I cannot further enter, consult Davis Obs. Med. Lond. 1832, p. 665. (Cases and references.

The chemical constituents of these calcareous depositions, which have been investigated by Dr. Bostock, are carbonate and phosphate of lime, (the latter in almost every instance predominating,) sulphate of lime, coagulated albumen, albumino-serous matter, and serosity of the blood, jelly, mucus and extractive. A section of one-quarter of a very large one, which, he says, was composed entirely of bone, weighing 4 oz., demonstrated cavities and internal spaces occupied by fibrous and membranous matter.

The coëxisting conditions of the uterus next merit attention; a point which Churchill has, I think, overlooked in a resumé of the facts connected with this disease, than which, in the combination of completeness and concision, I can conceive of nothing otherwise more perfect. Andral has best stated the facts on this subject. When the tumor is of moderate size the organ remains healthy, but when large, the tissue assumes the characters of the gravid state. The mucuous membrane remains pale and unaltered, though sometimes more or less vascular. When there are several tumors, the cavity has been found filled with blood, partly fluid and partly coagulated. Ingleby observes that "in some cases, the proper tissues of the uterus have acquired an increase of bulk; but in others, the walls have become so thin as to justify an apprehension that labor pain might occasion a breach of substance." Dr. Hodgkin, in reply to this and similar doctrines elsewhere advocated by Dr. I., remarks that he has seen several specimens, "in which this increase has taken place almost to the same extent as in pregnancy." "I know," says he, "that this increase is not invariably the case, and that the substance of the uterus may, on the contrary, be much less than is natural, but I do not pretend to decide whether the tubercle was developed in a very small uterus, or whether the uterus was reduced after the formation of the tubercle." The uterus may be diseased, enlarged, its os thickened, ossified, dense, cellular, its parietes half an inch in thickness. Ingleby mentions that the cavity becomes crooked, deep and large enough to contain, in one case, as much as 1½ lbs. of blood. Boivin and D. remark that the uterus sometimes grows thinner, particularly on the side opposite to that which is thickened by the tumor. They once saw a singular change of shape from this cause. The uterus represented a cone 10 inches long, whose point was formed by its upper angle on the right side; from the summit to the base, i. e. from the utero-vaginal orifice to the interior of the uterus, which was a narrow cavity, the length was 9 inches. "When," says Lee, "fibrous tumors are situated between the muscular strata of the uterus and attain to a large size, its fundus, body and orifice usually become hypertrophied, as during pregnancy, and greatly altered in shape. If midway between the peritoneal and mucous membranes, as they slowly enlarge, they press equally in all directions, and cause the uterus to project both on the external and internal surfaces. When a thin layer of muscular fibre is interposed between the peritoneum and the tumor, the latter is observed only on the corresponding peritoneal surface of the uterus, and the cavity of the organ remains unchanged." Roemer considers the mode of action by which the hypertrophy is effected, as similar to that of pregnancy, and not a mere dilatation: occurring chiefly in that species which is situated in the substance of the uterus. He says that Fleischmann (Leichen. Oeffn. Erlang. 1815, p. 177—180,) had seen the uterus so situated, as that its posterior surface looked to the left, its anterior to the right, its left lateral margin forwards and its right one backwards; and also that Sebastian had seen a species of decidua sometimes to occur on the inner surface of the uterus, as happens in extra-uterine pregnancy. In one of Cruveilhier's plates of the fibrous tumor, the cervix uteri has undergone an extreme degree of narrowing and elongation.

The diseases with which the non-pediculated fibrous tumor may coëxist, are polypus, retroversion of the uterus, malignant diseases of the os and cervix, and enlargement of the ovary. Pregnancy, either true or false, may also concur, and suggests some most important practical reflections. The diagnosis, relatively to some of these conditions, will hereafter be alluded to.

The age at which they occur is various. In the Eph. Acad. Nat. Curious. Dec. 1, Ann. 4 and 5, Obs. 65, cited by Louis, it is said that the child of a Warsovian merchant died at five years of age, of a retention of urine. The womb was dilated and contained a stone of a white colour, a little larger than a pigeon's egg. Ingleby says he has detected them in girls under 20 years. A patient of my own was just that age, and the tumor, when discovered, had attained a considerable size. Bayle states that they are never met with before 30 years of age, and the remark has been reëchoed by Clark and Andral. Boivin and Dugès, however, mention a case evident at 14 years; one pretty large at 16½; others at 18, 25, 26 and 29 years. McIntosh speaks of a very large one (80 lbs.) in a "young woman." Francis, one at 27 years. Ashwell, cases at 25 and 28 years.

Boivin and Dugès remark that they are most common in lymphatic women. Bayle considers that celibacy favors their development. Under the heading "Polypus," in the Dict. de Med. et Chir. Prat. vol. 13, Blandin remarks that this statement requires to be submitted anew to the crucible of observation, for that of 58 women affected with uterine polypi, 54 had had sexual intercourse, and of 51, 42 had borne children. Of the cases I have analyzed, 49 had had intercourse with the male; of these 32 had been pregnant, and of these, 17 at least while laboring under the disease. A patient of Ingleby's bore three children while thus affected; most of his, however, had borne no children for several years previously to their coming under observation. Eight of my patients had borne children. Ingleby states that of 47 cases, 10 occurred in married women. Blandin mentions a case in which a woman who had ten tumors, had borne six full grown children, and she had three miscarriages. Of 9 women affected with fibrous polypi, Marx found that one had had no children, 1 was a widow, 1 had had two children, 2 had had three, 2 had had four and 1, eight. Celibacy then is not to be considered as a material cause, nor is sterility a necessary, although a frequent consequence.

Fibrous tumors are, as I have before said, of very frequent occurrence; so much so that Portal, in the examination of 20 uteri, discovered them 13 times. Bayle calculates, and he agrees with him, that they will be found in 20 cases out of 100, after 35 years of age, and Boivin and Dugès think few virgins exempt from them after 40. In my observation, they are, next to the benign ulceration of the surface of the os uteri the *disease* of the womb most commonly met with in practice, *and the most frequent cause of the many marked symptoms under which females so generally are unhappily found to labor.* To this interesting consideration I shall again hereafter advert.

[TO BE CONTINUED.]

Art. III.—*Extracts from the Report of the Proceedings of the New-York Pathological Society.* (Selected and prepared by Committee of Publication.)

Report of a Case of Aneurism of the Basilar Artery, with Statistics.

By Wm. S. Bowen, M. D.

Denton Marvill, æt. 33, New-York, boatman, admitted into New-York Hospital, Oct. 17, 1848.

About six months ago this patient had a slight apoplectic attack, from which he only partially recovered in about three weeks. He has since that period lost his memory, and cannot recall the proper name of any article. He has also, in some degree, lost the power over his lower extremities, walks with difficulty and very unsteadily. He does not complain of any pain in his head. The pupil of the left eye is the most dilated, but is slightly acted on by light. His general health is pretty good and he walks about the ward and in the halls with the aid of a staff.

December 2d. Patient had an apoplectic attack yesterday, with tonic convulsions, and died.

Autopsy eighteen hours after death. The lateral and fourth ventricles were filled with fluid blood, in which lay some blood coagulated. Blood was also effused under the arachnoid membrane, around the medulla oblongata. The septum lucidum was broken down, and the brain was very much injected. The right vertebral and the basilar arteries were dilated; the first at a point just below its junction with the basilar. The tumor was about the size of a pea. The aneurism of the basilar artery was three times as large, and occupied the centre of the pons varolii. There was a large quantity of bloody serum at the base of the brain. No softening of the brain was discovered. Professor Joseph M. Smith (who had charge of this case) predicted, if I may be allowed the term, that the softening of the brain would be discovered, and that the disease, of whatever nature, would be found to occupy the pons varolii. I mention this as an instance of accurate diagnosis, and I shall now attempt to show that a profound knowledge of anatomy and physiology, and even of pathology, is insufficient to enable us to diagnosticate aneurism of an intercranial artery. For this purpose I have selected twelve cases of aneurism of cerebral vessels, from a large number of cases. Of these, 7 were of the basilar artery; 1 of the middle meningeal; 1 of the middle cerebral; 1 of the junction of the carotid and posterior communicating; 1 of the anterior communicating; 1 of the junction of the carotid and middle cerebral.

Of the 12 cases: three were hard drinkers; one was of an enfeebled constitution; one was the subject of carotid (common) aneurism; one was an incessant reader, who dated all her symptoms from the time of a severe burn; two are remarkable from the fact of their having had no premonitory symptoms whatever. Of the remaining four, nothing special can be said as to habit or predisposition.

I looked very carefully, not only over these twelve cases, but over all I could find in the journals, with the hope that I might find one or more symptoms that ran through all. Pain in the head seemed the most promising, but on closer examination this failed altogether; for instance, of the above twelve cases, six had pain in the head and six had not. Of those who complained of this symptom some said it was constant, others that it was intermitting. In one it was described as dull and

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heavy, in another lancinating, and in another pulsating. Seven had one or more attacks of complete apoplexy or of convulsions prior to their admission into hospital.

I take it, that if all the cases of cerebral aneurism on record were classified, we should not be able to trace one pathognomonic symptom throughout the series, and simply for the reason that other diseases of the same tracts or centres (ganglia) of neurine, on which the tumors pressed would probably produce the same symptoms, and where we to look for an aneurism, we might find pus, or where we anticipate softening of the brain, we might not only find that but unexpectedly an aneurism as its cause.

Let us glance at the leading symptoms of a few of the selected cases. I take those of basilar aneurism,—

1st. The case reported; here we find a staggering gait, both lower extremities being equally involved. The next case presents us with pain and stiffness along the spine and in the lower extremities. The patient had experienced for many years an occasional sudden inability to swallow. Another complained of great weariness of the limbs, which occasionally went to sleep. Another was admitted with paralysis—without history. The next had some difficulty in swallowing on any excitement. The next had paralysis of the right side of the face. These signs are in themselves sufficiently intelligible for any general diagnosis, but they are also sufficiently vague when we consider them in relation to any particular disease. Again, on examining the records of the cases, we find that these symptoms principally refer to attacks of apoplexy. A fixed pupil is a symptom, or the side of the face is paralyzed, deglutition is affected, or the patient has a staggering gait, and we say that the third pair is involved—that the portia dura is affected—or in the latter instances that the oblongata and commissural fibres of the pons varolii are the seats of trouble, and that trouble may be owing to extravasation, to ramollisement, or to aneurism.

All the above cases died of apoplexy. In some the *injection sablée* of the French writers was found, in others, decided softening of the brain. In two of the cases the action of the mind was impaired.

As to the causes of this affection, we may briefly refer to ætheromatous degeneration as a principal one. In Mr. Crisp's admirable work on the arteries, we find a chapter on the various deposits and the specimens recently presented by Dr. Van Buren before the Society, beautifully illustrates all that he (Mr. Crisp) says on the subject.—*March* 14*th*, 1849.

Case of Aneurism of the Aorta. By Wm. H. Van Buren, M. D.

A policeman, about 30 years of age, consulted me in August, 1848, with regard to a terribly severe pain in the left hip with which he was first attacked some three years before, and which occurred from time to time in irregular paroxysms, becoming of late more frequent and severe.

He stated that he had formerly led a very irregular and dissipated life, drinking constantly to excess; four years ago he had chancre, for which he used mercury freely; it left him with an exceedingly narrow stricture at the orifice of the urethra, which causes no serious inconvenience, and has been stationary for several years. Has been married ten years, but without family. His aspect is bad; it is that of a broken-down man.

The pain, which he described as excruciatingly severe, was referred principally to a point about midway between the trochanter major and the posterior superior spine of the ilium of the left side, whence it extended down to the knee, "*streaming*" also up the spine and down the arm of the same side. He could not describe the nature of the pain, and the attempt to do so in answer to my interrogatories, from the vivid recollection of the extreme suffering, brought tears into his eyes. He became not unfrequently delirious during the paroxysms, and on their subsidence the parts affected by the pain were left morbidly sensitive to the touch; they were more frequent and severe in damp weather. Latterly his attacks have occurred oftener, and have lasted longer; showing a disposition, seemingly to recur at the same hour every day.

At this time I could discover no tumor in the abdomen; nor was there any evidence of disease of the kidney, or of lumbar abscess. At the end of a month, during which time his paroxysms of pain continued unrelieved except by narcotics, I was called in haste, early one morning, and found my patient pulseless, excessively prostrated and covered with a profuse clammy sweat; his heart was beating with extreme rapidity and as feeble as rapid; his face was pinched and haggard, and his voice diminished to a husky whisper. He was calling continually for water, and vomiting it as fast as swallowed. The abdomen, which was exceedingly tender to the touch, was very much distended. By percussion I found that the greater part of this distension was caused by gas in the bowel, but on the left side a solid mass extended from the floating rib to the crest of the ilium.

This condition had occuired suddenly during a paroxysm of pain which ceased at once, and he now lay in absolute terror of its recurrence. The pain, however, never returned as before. By means of a sinapism to the belly he was enabled to retain small and frequently-repeated doses of morphine, camphor and brandy, which, with an enema of turpentine and catnip tea, gradually removed the most urgent symptoms. He very gradually and slowly rallied during the succeeding ten days, at the end of which time his pulse had fallen from 150 to 90 in a minute; the sweating and tympany subsided and the voice returned. During this time he had taken nourishment in the most concentrated form with diffusible stimulants, and his friends had been induced to anticipate a speedy and sudden death. As the bowels ceased to secrete air, the abdominal tumor became more prominent and better defined, and was ascertained to fluctuate obscurely; it presented not the slighest pulsation either to touch or sight, nor a thrill to the ear. In this condition it was considered by a surgeon of eminence, who saw the patient at my request, to be an abscess. Several others, however, thought that they recognised, from the sequence of the symptoms, an aneurism of the aorta, which, it was thought, caused the terrible pain at first by stretching the spinal and sympathetic nerves as it grew, and afterwards, when it burst and became diffused behind the peritoneum, almost causing immediate death by the immense extravasations of blood which constituted the tumor. It was thought that the diminution in the frequency of the pulse was incompatible with the increase of the tumor if an abscess, in which case also the sudden prostration, so characteristic of sudden loss of blood, would remain unexplained.

In a week more, he died suddenly, and on examination an immense, diffused, true aneurism was found arising from the aorta, just below the origin of the cœliac axis, the cavity of which contained some 5 or 6 lbs. of coagula of different dates.

The immediate cause of death was the rupture of the peritoneum, the cavity of which contained a mass or recently effused coagula.—*March* 14*th*, 1849.

Case of Œdema of the Glottis. By J. W. Corson, M. D. (Communicated by Dr. Metcalfe.)

Brooklyn, March 28*th*, 1849.

Dear Doctor,—Allow me, in compliance with your kind request, to forward through you the accompanying specimen, for presentation to the notice of the members of the Pathological Society.

The patient died of œdema of the glottis, under the care of my friend, Dr. Otterson, of this city, to whose courtesy I am indebted for the privilege of assisting at the post-mortem examination, and of doing myself the pleasure of sending this contribution to the society for examination. The following is an abstract from the minutes of the case, kindly furnished by Dr. O.:

N. L., aged 49, a widow, engaged in nursing, rather robust, and in good health, having previously slept in a damp basement, was seized on Thursday, 1st of March, with soreness of the throat, accompanied with difficult deglutition. Feeling no other inconvenience and no febrile symptoms, she resorted only in the evening to domestic remedies: took a dose of sulphate of magnesia with infusion of senna; applied a stimulating liniment and flannel to the throat, and used an astringent gargle and a warm foot-bath.

She grew worse next day, and Dr. O., on visiting another patient in the same house, was called to prescribe.

Found deglutition painful, the tongue furred, and studded posteriorly with enlarged follicles; the right tonsil healthy, and the left slightly inflamed, with a blush of redness upon the surrounding mucous membrane. The pulse was 80, and nearly natural, the skin cool. The bowels were freely moved by the purgative of the previous day, but the patient complained of feeling decidedly worse. Ordered ten grains each of calomel and compound extract of colocynth, in four pills, to be taken immediately. Continued the liniment and gargle.

Saturday, March 3d, 10 A. M. The purgative has operated freely, affording, at first, temporary relief. Passed a restless night. Symptoms generally worse. Tongue still furred, no apparent increase in the redness of the fauces or the size of the inflamed tonsil; but the countenance is anxious, the pain increased; there are slight febrile symptoms; the pulse is 90, and the skin dry.

Pencilled the fauces and tonsils with a solution of the nitrate of silver of the strength of ʒj to fl.℥j. Ordered a warm poultice to the throat. These afforded temporary alleviation. Two hours later she complained of increased pain, accompanied with slight hoarseness. The patient grew worse until 3 o'clock, P. M., when Dr. O. was summoned in great haste, and found the patient with a countenance expressive of the greatest anxiety, the forehead bedewed with perspiration, the face and extremities livid, and the breathing stridulous and convulsive. As her physician entered the room, she made an ineffectual attempt to speak, began rapidly to sink, and in ten minutes expired.

Post-mortem, 20 hours after death. Neck slightly swollen externally, and the tongue somewhat enlarged.

An incision was then made through the integuments, from the symphysis of the inferior maxillary to the sternum, and the dissection then continued so as to remove, as you perceive, the tongue, pharynx, larynx, and trachea, as far as an inch below the cricoid cartilage, with the os hyoides and portions of the adjoining muscles.

The base of the tongue was slightly swollen and studded with enlarged mucous follicles. The whole mucous surface of the pharynx was inflamed and vascular; the uvula small but injected; the right tonsil natural in size and the left slightly swollen. There were no ulcerations visible. The epiglottis was vascular and reddened, particularly on the left side. Lying like a little bulwark in front of the epiglottis was an elevated fold of mucous membrane infiltrated with serum, which ran posteriorly along the left margin of the former in a semilunar direction, so as nearly to encircle the superior margin of the glottis. Suspended from this elevated border, on the left side, like a bag, was an infiltrated portion of mucous membrane and sub-mucous tissue, large enough completely to fill the chink of the glottis. It seemed to have been wedged in and drawn downward from its atachment above, by the violent efforts at inspiration, and it required a little effort of the finger to withdraw it from its situation. The mucous membrane lining the glottis itself was but slightly injected. The chink was nearly of the normal size, and the lining membrane of the trachea below was but very slightly reddened.

You will perceive that in this case the œdema was of the kind described by Rokitansky, as having its seat in the arytæno-epiglottic folds, and that it affected but slightly the lining membrane of the vocal chords and ventricles.

There is a practical question, which in the honest pursuit of knowledge, I am sure my excellent and liberal friend who treated the case, will be happy to have discussed. Is the application of the nitrate of silver, so frequently in use in such cases by us all, ever attended with the risk of aggravating or producing œdema?—*March* 28*th*, 1849.

ART. IV. *On the Utility of Chloroform, in difficult Parturition.* By P. A. AYLETT, M. D.

THE unparalleled success which has recently attended the administration of anæsthetics in my obstetrical practice, induces me to offer a few remarks on the utility of chloroform in cases of difficult parturition. In a variety of exceedingly painful cases of obstetrical operations, manual and instrumental, I have given this agent with decided benefit and have not, in a single instance, had any unpleasant consequences to originate from its use. On the other hand, many of my patients have recovered so unusually rapid after formidable operations, as to dispose me to consider their speedy restoration to be attributable to the anæsthetic property of this invaluable agent. I am, also, persuaded that the diseases which are incidental to the puerperal state, particularly, metro-peritonitis, puerperal mania and abnormal determinations to the mammary glands, are much less liable to supervene when chloroform has been used during parturition than otherwise.

I conceive it acts by diminishing the impressibility of the system, somewhat analogous to opium and hyoscyamus when given by the surgeon immediately after severe injuries, such as compound dislocations and contusions of important organs, for the purpose of preventng consecutive symptomatic fever.

Chloroform may be generally used with perfect safety, both to mother and child, and some erudite accoucheurs use it indiscriminately; but there are certain pathological states of the system in which it should not be given. It is contraindicated in organic diseases of the cerebro-spinal axis and of the thoracic and abdominal viscera. I am induced to believe, that the unpleasant consequences, which are reported to have originated from the use of anæsthetics, will be found if critically analyzed, to be attributable to their having been given in cases complicated with organic lesion of some important viscera. Our matrons and nurses in the Lying-in Asylum, consider the exhibition of chloroform to be extremely irreligious; they argue, that it is mentioned in the Bible that women are to bring forth in pain and sorrow, and that we have divested the Almighty of his legitimate power, by annihilating the pangs of parturition. Prejudice and ignorance has caused some of our profession to doubt the utility of this divine agent. In presentations of the vertex, breech, knees or feet; in extreme irritability and sensibility of the genital organs; in pelvic version, cephalotripsy, and forceps delivery, chloroform is an invaluable agent to the obstetrician.

I am resolved never to perform an important operation without having my patient under the influence of this *magnum donum Dei.* As regards its *methodus medendi,* the iatrochemical and physical philosophers, as they are termed, frankly acknowledge their inability to offer a plausible explanation of its effects. The humoral interpretation of the physiological and pathological phenomena of living beings, fails in this instance, as in many others, to throw any light upon the subject. Vitalism, alone, can satisfactorily explain its modus operandi. The erudite physiologist finds no difficulty in perceiving that it produces its impression like all other morbific and remedial agents upon the vital properties of the parts to which it is applied, and by remote, continuous and contiguous sympathy on the general system. The remedy, when inhaled, is brought in immediate contact with the pulmonary mucous membrane. Its primary impression is then made upon the vital properties of that tissue, and by remote sympathy its anæsthetic properties are radiated to every part of the system, producing complete paralysis of all the muscles of voluntary motion, without affecting the muscular contractility of the uterus or any of the organic viscera. Sensibility, irritability and mobility being for the time apparently, completely annihilated. The time is not far distant when this valuable agent will be duly appreciated. And when the dread entertained by some of the pangs of labor will not lead to fœticide or abortion. I will here remark that my patients, females of highly cultivated minds, have in several instances frankly acknowledged that they have been driven to such an inordinate pitch of desperation. I will conclude this article by citing an obstetrical operation which I recently performed, as I am persuaded it will induce the most incredulous to acknowledge the utility of anæsthetics in instrumental delivery. Mary Haly, aged 26, in her first confinement, applied to the Lying-in Hospital for assistance, on July the 28th. I placed her under the personal supervision of two of my pupils, Messrs. MacSwain, of North Carolina, and Lampley, of Alabama. At 3 o'clock, the following morning, I was summoned to attend our patient by Mr. Lampley, who apprehended either rupture of the uterus, or puerperal mania, as the uterine contractions had been extremely violent for a period of twenty-three hours, without the least progress being made in the labor. I found our patient in a very perilous situation. My pupils were anxious for me to terminate the labor without a moment's delay; but I decided on waiting a few hours, hoping that the energetic contractions of the uterus would succeed in overcoming the obstruction. At 10 o'clock, on Sunday night, the woman having been in labor 40 hours, I discovered, on making an examination, the head to be at the superior strait, vertex presentation left anterior occiputo-iliac position, and the strength of our patient very much exhausted. I decided, at once, on the application of the forceps. Having placed our patient under the influence of chloroform, and in the usual position for applying the forceps, I commenced the operation. After some trouble I succeeded in locking the forceps; but my reiterated efforts were inadequate to bring the head into the pelvic excavation. My tractions were then augmented by the assistance of one of my pupils, Mr. Shearer, of Alabama; but we found it a physical impossibility to terminate the labor without resorting to evisceration of the cranium, ascertaining, by the use of stethoscope, that the child had ceased to live, I decided on performing cephalotomy. It being obvious, that unless our patient was speedily delivered, she would inevitably perish. Introducing my hand for the purpose of guiding the perforator, I felt for the sagittal suture, at which point the cranium was perforated, and separating the blades of the instrument thoroughly, broke down the brain, and by the reäpplication of the forceps, terminated the labor in about five minutes. Notwithstanding the energetic contractions of the uterus, the hemorrhage was profuse; but by the application of cold to the abdomen, and the introduction of my hand into the uterus, it was speedily arrested. The patient remained perfectly insensible during the whole of the operation, and said she had not the remotest recollection of any thing that transpired. The fœtus presented a hideous specimen of congenital hydrocephalus. The cranium measured, occipito-frontal diameter, nearly five inches, and the occipito-mental, between six and seven.

The recovery of this patient was unusually rapid. She was discharged, cured, on Tuesday last, ten days subsequently to the operation.

I have ostensible reason for believing that she would have inevitably perished, but for the use of chloroform.

Art. V. *Inflammation and its Consequences.* By J. P. Batchelder, M. D. (Continued from Vol. II., p. 30.)

In the preceding papers on Inflammation, published in this Journal, the writer explained the *modus operandi* of the exciting causes in the production of inflammation, and showed that the proximate cause consisted in a decreased action of the capillaries appertaining to the inflamed part, and that the proximate effect was by inevitable consequence a distended, or over-distended condition of those vessels, and that that over-distended condition actually constituted and comprised the disease itself. From these premises it was inferred that depletion of the capillaries, by whatever agency accomplished, comprised the cure. Upon that broad inference, the first, second and third indications of cure were based; but as depletion of the aforesaid vessels is not unfrequently effected or accompanied by a simultaneous effusion of their contents into the tissues immediately surrounding them, or other contingencies and consequences which derange structure or function, another and distinct indication, not having relation to the cure of the disease, was deemed necessary, which we now proceed to consider.

FOURTH INDICATION

Is to obviate the consequences of the disease ; or more particularly, to remove from the part affected whatever has been effused or secreted, by which the vessels have been relieved and the inflammation cured. In other words, the sequelæ of the disease.

The reason of this indication is quite obvious ; if the matters so extravasated were allowed to remain, they would in most instances, as suggested, either impair, interrupt, or destroy the function or structure of the organ or part. If the organ was essential to life, the most serious results might be apprehended. This view of the subject brings us to the consideration of the various terminations, technically so called, of inflammation. The doctrine inculcated in these papers is, that inflammation has but one legitimate termination, i. e., by depletion ; but as systematic writers teach, and the profession in general reckon on several, as resolution, suppuration, ulceration, and gangrene or mortification, we feel bound to consider them, with the exception of gangrene, separately, and in so doing shall endeavor to trace out the principles on which they depend, and the laws by which they are governed, and also the rules by which the treatment proper to each should be regulated.

RESOLUTION.

When from the nature of the cause, degree, duration or treatment of the disease, the effusion of serum, or lymph, or both,* takes place early, or in a quantity so small as to be speedily absorbed, yet sufficient to empty the vessels, the inflammation is said to terminate in resolution, the result always to be aimed at. The signs which evince that resolution is taking place, or is about to do so, are to be found in the modifications of the phenomena essential to the existence of the disease ;† viz. increased heat, redness, pain and swelling. When examining with a view to the probable occurrence of resolution, we should pay particular attention to the changes manifested in the edges and purlieus of the disease ; for instance, the decrease of the redness and swelling is first perceptible in or about the margin of the inflamed part, before the slightest change in either of these symptoms can be perceived in other portions. The peripheral parts being in juxtaposition with those that are in a state of health, it is reasonable to suppose, that the vessels of the former will first resume the functions of health, and that the fluids which give rise to the abnormal color and swelling, will be absorbed and removed by vessels in the neighborhood, whose functions are only disturbed, but not actually interrupted, as they are in other parts where the morbid causes have acted with more energy.

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* The nature of the effusion, though varied by the cause, intensity and duration of the disease, is also modified by the structure of the part. If the disease is slight, or of short duration, there may be an effusion of serum only, causing œdema or local dropsy ; if of a higher grade, or of longer continuance, coagulable lymph, as well as serum, will be effused, and the part for a time remain indurated, and its function impaired.

† This principle will be likewise observed when considering the other terminations of inflammations.

From the abatement of the pain, and subsiding of the swelling, it might be inferred that resolution was certainly going to take place; but sometimes the tumefaction does really increase, and that considerably, when resolution is about to follow; hence, if ignorant of the anomaly and unacquainted with its cause, we might be led to give a wrong prognosis. To avoid such a mistake, it is necessary to discriminate between the increase of tumefaction by effusion, and that which arises from mere distention of vessels, which is done by noticing the difference of feel; that from effusion is much softer than that from distention of vessels. The changes of sensation, which accompany these different conditions, should also be taken into the account as constituting an important ground of distinction. When the increase of swelling is from effusion, the pain, heat and sense of vascular distention abate, because the vessels are depleted; when from over-distention, these sensations are all aggravated, and furthermore, the redness is also increased. In fact, the abatement of the aforementioned symptoms affords the most certain criterion by which to judge of the probability that resolution will be effected, especially in the early stages of the disease.

Resolution, in the strictest sense, is accomplished by early restoring the equilibrium between the capillaries and the pores,* in order to prevent copious effusion. The means for accomplishing this having been considered in former papers, the rule of practice for the fulfilment of the fourth indication in connection with resolution, is to promote the absorption of the effused matter, which is accomplished by friction, blistering, compression, made by bandages, compressed sponges, and such other means as the ingenuity of the practitioner may suggest. The compressed sponge bound firmly on the part, and then kept quite wet for twelve or twenty-four hours often works wonders. The oftener it is exchanged for a piece that is freshly pressed the better. The general remedies are mercury, emetics and cathartics, which however are seldom required or employed.

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* It should be kept in mind, that it is not at all times the absolute over-distention which disturbs the equilibrium, but often the suddenness and violence with which the contained fluid is forced against the sphincter, if the organ be large, or pore if a capillary is concerned, which causes them to resist. Even when vessels are over-distended, if we make warm, soothing applications, which diminish or take off their forcible action, the pores will, as has been suggested, relax, aud effusion follow, in which case resolution may ensue. In the early stage only is this to be expected with much confidence.

ADHESION.

Adhesion is considered a termination of inflammation—erroneously, as we conceive and have endeavored to show.

It happens when coagulable lymph in small quantity only is effused. Now, the effusion has emptied the vessels and cured the inflammation; the adhesion, being subsequent, is effected by a process entirely new.—This must be so; few accidents more certainly prevent adhesion than inflammation. Every surgeon, desirous of securing union by the first intention, anxiously deprecates its approach, which he knows is so apt to frustrate his purpose.* Effusion of fibrine is all that is required in the first instance; and increased action, just enough to produce it, is necessary—all beyond that is to be avoided. This process of adhesion presents a series of interesting phenomena, and is to surgery what steam power is to mechanics—the origin of invaluable improvements; the cause of astonishing results. It was first noticed by quacks, who of course kept the discovery a secret, and availed themselves of its advantages in practice, for the purpose of filling their purses. Openly they dressed and doctored the instrument which inflicted the wound,† the lips of which cheatingly they brought together, and covered them with some magic powder or balsam, which kept them in contact. Charms and all sorts of fooleries were resorted to for amusing and diverting the multitude; but the healing of the wound in a few days by adhesion, was the valuable result.

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* "Adhesive inflammation," a most unfortunate phrase, was introduced by John Hunter, and from his time to the present has misled the profession.

† The practice above alluded to, was not wholly abandoned, even some years after the writer commenced business; for he distinctly recollects one case to which he was called, and found that the doctor in attendance had actually applied his dressings to the axe, the implement which had inflicted the wound; and another, in which both tines of a pitchfork had been wrapped up, because, forsooth, it could not be ascertained to a certainty which had inflicted the injury.

The just treatment of all wounds, whether the result of accident or of surgical operation, requires that the practitioner should have a precise and perfect knowledge of the laws by which the process of adhesion is governed, and the rules by which the practice should be regulated. The laws are:

1. The quantity of fibrine effused must be so small as not to prevent the vessels, new or old, which shoot into it, from inosculating one with another.* If they so inosculate, adhesion is perfected by the organization of the fibrine, and the morbid process terminates;—but if the quantity effused is so great as to prevent the inosculation of those vessels, they will immediately commence secreting pus, and the granulative process is soon instituted. The rule of practice is, therefore, to keep down morbid action, and so prevent the too copious effusion of fibrine and serum, which would prevent inosculation.

This law, with some slight modification, probably obtains in most internal inflammations which involve the serous membranes.

2. The surfaces should not be pressed so firmly or closely together as to prevent the effusion of fibrine—if so, they will act upon each other, as extraneous bodies, and excite inflammation, by which adhesion will be prevented. The rule of practice deducible from this law is: To lay and keep the surfaces of a wound or abscess in easy contact by the gentlest means.

3. That nothing be interposed which would prevent the inosculation of vessels. The rule of practice is, to remove all extraneous bodies—blood, and even fibrine, if the quantity be such as to prevent inosculation. This implies that all hæmorrhage shall have been effectually stopped, as well as the blood removed, before the parts are brought into contact. Without this precaution, the blood subsequently effused would cause a violation of this very law.† Although this may be con-

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* This law, and the rule of practice, relates to both wounds and abscesses; for, if the sides of a wound or an abscess be not brought so closely in contact that the vessels which shoot from the opposing surfaces into the coagulable lymph (which glues them together) cannot inosculate or unite immediately with one another, they will secrete pus, and form granulations, by which the wound or abscess will be filled, and ultimately healed. This species of union, in techuical language, is termed "Union by the second intention."

† After the dressing of a wound, serum, and indeed fibrine, may be effused into its cavity in such quantity (especially if retained) as to prevent inosculation. This retention is caused by dressing too closely, in the first instance; and, in the second, by the drying and caking of the dressings, which prevents escape of further effusions. Hence the propriety of the cold water dressing, which not only restrains hæmorrhage, but by preventing the drying and caking, facilitates the egress of the serum, &c.

sidered as a modification of the first law, yet we have been induced to lay it down as a distinct law, in special reference to the treatment of wounds, and more particularly in relation to an accident which not very unfrequently occurs in the practice of the young surgeon; to wit, *the turning in of the edges of the skin.* When this is allowed, union by the first intention cannot take place; the interposed cuticle acts as an extraneous body, and prevents adhesion as effectually as a piece of wood or any other foreign substance;—indeed, the healing process does not commence until the cuticle is detached and removed, when the surfaces made raw by the removal will adhere or granulate. This oversight generally retards the healing of a wound three or four weeks; a delay much to be regretted, without adverting to the pain and suffering so unnecessarily inflicted on the unfortunate patient. A good constitution, although not essential, renders success in procuring adhesion more certain.

Uses of Adhesion.

This process of adhesion, as connected with disease, is of invaluable utility in the economy of the system. In the serous membranes within the abdomen or thorax, if the inflammation be mild, serum only is effused—if one grade higher, coagulable lymph will be poured out at the point where the disease is most intense, which will glue the membranes together, and thus stop the further progress of the malady, while the effusion around it has emptied the vessels and cured the disease. The tendency in these membranes to adhere, depends upon the fact that only a moderate degree of inflammation stops the natural secretion on their free surface, and renders it dry. Now this dry surface, in either membrane, coming in contact with an opposing portion, acts as an irritant—as an extraneous body—exciting inflammation in it, which in like manner suspends in that spot the ordinary effusion of serum. These opposite surfaces, thus conditioned, act and reäct upon each other, until coagulable lymph is effused, which glues them together, and serves as a bond of union, which, becoming vascularized, is rendered permanent by the organization, more or less perfect, which ensues. But for this adhesion, the disease would probably have extended over the whole membrane, and in most instances destroyed the patient,—by its intensity or extent interrupting the functions of important organs; or by the effusion of serum in such quantities as to produce the same consequences in another way. In cases of this description, the rule of practice deduced from the pathology connected with them is, to moderate or keep the inflammation within certain bounds; for if the quantity of fibrine poured out be so great as to prevent the inosculation of vessels, as heretofore represented, pus will be secreted in such quantity as to break up and dissolve the adhesions which surround it on every side, and fill the thorax or other cavity with sero-purulent matter. In intussusception, the intussuscepted portion of intestine inflames, mortifies, sloughs off, and is finally discharged per anum, and the patient sometimes recovers—the adhesion having secured the continuity of the intestinal canal. In strangulated hernia, also, when the gut mortifies, adhesion, fixing the part at the groin, prevents the escape of the fæces into the cavity of the abdomen, and at the same time establishes an artificial anus. When suppuration occurs in the cellular membrane, adhesion prevents the migration of the matter from one part to another.

DISADVANTAGES OF ADHESION.

Instances not unfrequently occur in which adhesion interrupts the function of organs, so as to destroy life, or render it exceedingly uncomfortable.

SUPPURATION.

Suppuration has been usually considered one of the terminations of inflammation; but the intermediate links between inflammation and suppuration seem to have been overlooked, viz.: the effusion of coagulable lymph, and the formation of new vessels, which, with a single exception,* always precede the secretion of pus. These new vessels, which secrete the pus, with the parenchyma which connects them together, compose the granulations, which, being piled one upon another, fill the cavity, and constitute what is technically called "Union, or healing, by the second intention." Although we sometimes speak of "laudable

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* That exception, (if, indeed, it be an exception,) is to be found in the inflammation of the mucous membranes. It is said, and perhaps generally believed, that the vessels which open on the surface of these membranes, and which, in a state of health secrete mucus, pour out pus when inflamed. When inflammation is not sufficiently intense to prevent the secretion of mucus, the quantity will be increased, in consequence of the increased determination of blood to the mucous follicles, on the principle that the function of every organ, whether of sensation, secretion or motion, is increased by an augmented flow of blood—within certain limits—to that organ. When inflamed, the capillaries which circulate the serum, fibrine, or the colorless constituents of the blood, are distended, but empty themselves by pouring out fibrine, into which the new vessels shoot, which new vessels, or old ones invested with lymph, as the case may be, as in other instances, secrete pus, which, mingling with the mucus, has given rise to the opinion that the same vessels which secrete the mucus secrete pus also when inflamed. This increased secretion of mucus is undoubtedly salutary:—1. By depleting the vessels, which tends to cure the inflammation. 2. By keeping the inflamed surfaces asunder;—thus obvi-

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ating adhesion and closure of the canals.* 3. By causing the removalof the lymph, or preventing its becoming so fully organized as to enable it to maintain its ground. The motion of these parts also greatly contributes to prevent adhesion.

We remarked that if the effusion of coagulable lymph was so large in quantity as to prevent the new, or primitive vessels, which shoot into it from inosculating with one another, they immediately commence secreting pus, which is deemed to be "altered blood;" and that the alteration of the blood, so as to constitute it pus, is the function of the new vessels, but they answer a secondary purpose, viz. the organization of the lymph;—their peculiar, appropriate and primary function is, we repeat, the secretion of pus. All that is required is an investment of fibrine about new vessels, or the old ones elongated, in order to enable them to perform this function. When the effusion takes place in passages communicating with the external air, as in the bowels, urethra, or air passages, it will be readily understood why the quantity of fibrine is too small to give rise to granulations, adhesions, or serious obstructions. These consequences, it is believed, never happen unless fibrine has been effused into the cellular substance immediately surrounding the mucous membrane, and into its texture, by which its peculiar structure has become changed, and its inner surfaces, thus altered, are brought into contact with each other, and adhering, finally become organized, and the canal permanently closed. If ulceration has ensued, the contraction of the granulations, by drawing the parts together, contributes to the same result. If this union does not take place, a stricture may ensue: this, however, depends much upon the size or calibre of the tube, and its destitution of motion, as in the lachrymal ducts, the fallopian tubes and urethra.

In bronchitis and pneumonia, we often hail the secretion of pus as a favorable symptom. "Like the bow in the heavens," it indicates "the subsidency of the storm," because it continues the process of emptying the vessels, begun by the effusion of lymph.

In the formation of pus on the mucous surfaces, without the effusion of lymph, in such quantities as to give rise to adhesion, granulation, or change of structure, we behold the foresight and wisdom of the Creator. If adhesions formed, death would be the inevitable consequence; if granulations, they would alter the structure, and render the part incapable of performing its appropriate function; or they (the granulations) might continue to accumulate and obstruct the passages, and in that way interfere with, disturb, or wholly interrupt the performance of the function. Our conclusion is, that the mucous membranes do not afford an exception as hinted in the text.

* When the inflammation is intense, there will be no secretion of mucus, which we have explained on the principle that over-distension, and consequently violent action, disturb the equilibrium between the excretory vessel and its pore.

pus," the formation of matter is never the product of healthy action.—It may be modified by the part affected—the state of the constitution—the cause and character of the disease.

SYMPTOMS AND SIGNS OF SUPPURATION.

Besides seriously involving the reputation of the surgeon, it is, in a practical point of view, often an affair of great importance to the patient to determine concerning the existence of pus, which is most certainly and scientifically done by carefully studying the modifications and changes that take place in the phenomena of inflammation, which immediately precede, accompany and follow the formation of matter. We are, therefore, in every case in which that result is anticipated, to keep a steady eye on those changes. In the first of these papers, the phenomena in question were carefully considered, not merely in strict regard to the nature of the disease, but indirectly with reference to this point.

1. PAIN.

In what way is the pain or sensations in the part modified, so as to indicate the formation or existence of matter ?

In acute inflammation, the first or earliest symptom indicative of the formation of matter, or that it is about to form, is the accession of sharp, lancinating, shooting, darting pains, as if needles were streaming off in various directions in the inflamed part.* The change of action, the perception of which gives rise to these sensations, is the yielding or relaxation of the pores, and consequent effusion of serum and lymph in such quantities, as to separate parts, cause tissues to give way, and prevent the inosculation of vessels, new or primitive, which may shoot into, or be formed in the effused fibrine, whose first function, if they do not inosculate, is to secrete pus. At or about the same time when these sensations are experienced, the pulsatile, or throbbing pains, become more severe,† which arises from the increased resistance of the capillaries immediately preceding the relaxation of the pores ; soon after which the throbbing may be expected to abate, for the effusion of lymph and serum depletes the vessels. Taken in connection with other coëxistent symptoms and circumstances, this abatement is a sign of suppuration. When suppuration has actually taken place, the sharp shooting pains, and the throbbing, are in a greater or less degree exchanged for a dull, heavy sensation, and often by a sense of weight, especially if the quantity of matter is large. As the matter accumulates, a sense of distention, caused by its pressure, is perceived, and is more especially appreciable on the side nearest the surface. The patient, if particularly interrogated concerning his feelings, in respect to these points, will inform you that there is not only a sense of weight as has been mentioned, but also a sensation as if there was something pressing from within outward, and distending the parts, as if endeavoring to escape.

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* These sensations are peculiar to the serous membranes: the cellular membrane, partaking of their nature, also experiences them. They are somewhat analogous to those which belong to the nerves, but are distinguished by the circumstance, that the latter, the nervous pains, dart or shoot along the course of the nerves, while those under consideration move in every direction, and are connected with inflammation.

† This throbbing or pulsatile feel may, to a certain extent, depend on increased intensity of the heart's action just at that point of time, and is evidence of the con-

2. Increased Heat.

When matter has formed, the sense of heat, of which the patient complained, actually diminishes ; but whether there is really any lowering of temperature ascertainable by the thermometer, I am unable to say ; but I have often observed, that it feels less hot to the hand than before. When suppuration is considerable, the patient will occasionally experience a sense of coldness, as well as of weight in the part, but may not mention either, unless his attention is called to them.

3 Redness.

The color of a part being dependent on the fluids which it or its vessels contain, explains, or tends to explain, why the increased redness (one of the phenomena of inflammation,) begins and continues to fade as the suppurative process advances. It first verges towards a scarlet ; then becomes more diffusive, and gradually paler and paler as the matter approaches the surface, until the skin directly over the immediate seat of the abscess assumes a dingy white, contrasting well with the surrounding red.* If the increased redness is a symptom of inflamma-

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test between the *vis a tergo* and the resistance of the capillaries, or their pores. When the former (the *vis a tergo*, or action of the heart) abates, the latter will forego their resistance, and the serum and lymph be poured out.

* For want of due attention, this change of color has been mistaken for a sign that resolution is about to take place—a fact which furnishes a caveat to the young sur-

tion;—if the secretion of pus, or perhaps, more properly speaking, the effusion of serum and coagulable lymph empties the vessels and cures that disease, it cannot fail that, on the occurrence of suppuration, there should necessarily be some modification of that symptom.

When the process of ulceration commences immediately after the formation of matter, the change of color is not so apparent. Instead of changing to a scarlet, it becomes crimson. Again, when matter has formed and the color in a marked degree become paler, it has resumed the crimson as soon as the ulcerative process began. Crimson is indeed the color of ulceration. The change from a deep to a paler red is owing to an effusion of serum into the cellular texture of the parts between the surface and the contents of the abscess. The change to a crimson, when the ulcerative process has been set up and is going on, arises from the absorption of serum, leaving the vessels turgid with blood, which, from its delay in these vessels, has assumed somewhat the venous character.

4. Tumefaction.

When inflammation is progressing the tumefaction also increases; but when suppuration commences, the swelling commonly begins to subside. While as a whole it has lessened, some portion of the inflamed part may appear, and often is actually more protuberant or "pointed."

The swelling may be likewise modified in respect to its hardness or softness as well as uniformity. The centre or focus, where the inflammation has been most intense, and where the pus is in greatest quantity, is soft compared with the margin which is hard and firm in consequence of the effusion and organization of the coagulable lymph, which has served as a barrier to confine the matter. The organization of this barrier converts it into a cyst, whose inner surface continues to secrete pus, which is thus confined to the cavity into which it was at first secreted. Beyond this cyst and barrier, on every side where the inflammation was less, serum is effused and sometimes perhaps albumen;—the same thing also happens between the cyst and the external surface; hence the œdema and pitting not only all around the collection, but absolutely between the matter and the skin, and not unfrequently

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geon not to make up his mind and come to a conclusion, even in trivial matters connected with professional affairs and pursuits, without taking all the attendant circumstances into the account. To be mistaken, in regard to the existence of matter, seriously compromises the professional character of even an old practitioner.

in the latter. We have sometimes found this œdema so great as to obscure the sense of fluctuation, even when the quantity of matter has been considerable. When all the other symptoms are in keeping, this œdema is one of the surest signs of the existence of matter; it depends on the very necessity of the case:—for if lymph is effused in sufficient quantity to be followed as we have shown by the secretion of pus, the effusion of serum, upon which the œdema depends, will be still more copious and extensive.

The foregoing constitute the modifications of the phenomena, and comprise the local symptoms which indicate the existence of matter; but there are changes involving more or less the whole system, which are also symptomatic of suppuration, with which the practitioner should be familiar; because matter sometimes forms in situations or under circumstances which preclude the possibility of making the fore-mentioned criteria of its existence available;—we are then obliged to resort to other phenomena as evidences of its existence, amongst which is

THE RIGOR OR CHILL,

Which, time out of mind, has been noticed in this connection; but the true nature of which has not been, to the knowledge of the writer, very satisfactorily explained, or its connection with the thing signified, very clearly traced out.

In order to understand this matter fully, it should be recollected that the cutaneous capillaries are the only vessels designed by nature to be ordinarily subjected, to any great extent, or in any considerable degree, to the influence of temperature, and are therefore the only ones which do experience and take cognizance of changes induced by its vicissitudes. The application of cold, or rather the abstraction of caloric, produces a contraction of the capillaries of the skin, and indeed sometimes of other parts, so much as sensibly to diminish the size of a limb. The perception of change produced by this contraction of the capillaries, especially of the skin, constitutes the sensation of coldness,—a certain sign that that particular action is going on, no matter how induced;—shrinking of the cutaneous capillaries being all that is requisite to produce that sensation, or the chill. Now then, how is the shrinking occasioned, which is indicative of the existence of pus? As soon as matter is formed, a portion of it is absorbed, and passes into the general circulation:—coming thus in contact with the inner surfaces of the capillaries, which are rendered preternaturally sensitive by the prevalence of the phlogistic diathesis, it (the matter) makes on them a strange and novel impression, and stimulates those vessels to contract, partially, perhaps at first, if the quantity of matter absorbed is small—in which case a mere chilliness is felt; but soon as the quantity is sufficient to produce a general shrinking, a complete rigor* is experienced, which resembles the cold fit of an ague, and is not unfrequently followed, as in that disease, by the hot and sweating stages.—Hence the flashes of heat and colliquative sweats in hectic fever. If, as suggested, the quantity of matter is small, a slight chilliness or chill may be produced—if it is allowed to remain and increase, the shivering will be repeated from time to time, with an intensity proportioned to the augmented quantity of matter, until a full rigor is experienced. When repeated again and again, the chill is a sure sign, other symptoms being in accordance, not only that matter is already formed, but that a portion has been absorbed and carried into the general circulation, and like imperfectly assimilated chyle makes a strange, novel and disagreeable impression on the inner surfaces of the capillaries, causing them to contract; hence the chill or rigor, which is so often repeated when there are large abscesses or continued ulcerations in important organs.†

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* The stomach, rectum, uterus and bladder may be considered as capillaries of enlarged dimensions, whose actions, commensurate with their size, are easily and readily comprehended, and therefore well adapted to illustrate the manner in which that order of vessels perform their function. All are familiar with the fact, that the expulsatory efforts of these organs, if abnormal in a slight degree only, are attended with a sense of chilliness, especially in sensitive persons, which goes off as soon as their contents are expelled. In some instances it ceases when the sphincter relaxes and the evacuation commences, and always when the organs forego their contractile effort, whether emptied or not. The same thing may be observed in people of weak and irritable temperament, whose digestive and assimilative powers are imperfect. The patient, in such cases, not unfrequently experiences a sense of chilliness almost as soon as the food is received into the stomach, but oftener after the lapse of an hour or two, when it is a sure proof that the processes of digestion and assimilation have been incomplete;—that imperfectly formed chyle, taken up by the lacteals, has found its way into the general circulation and is making a strange, novel and disagreeable impression on the inside of the capillaries which causes them to contract—hence the sense of chilliness.

† After injuries of the head these chills and shiverings are "portents dire":—they are almost the only signs by which we judge of the existence of pus within the cranium, requiring the trephine—the only agent by which the unfortunate patient can be saved, if indeed he can be then saved at all. In connection with inflammatory affections of other internal organs and deep-seated parts, they are of the highest importance. In such cases they should always be most seriously taken into the account when making up our diagnosis and prognosis, without forgetting that the chill is sometimes caused by simple irritation.

FLUCTUATION.

The most unequivocal sign of the existence of matter is fluctuation, which should ever be taken in connection with other symptoms or changes indicative of suppuration; for surgeons, who have relied on it exclusively, have found themselves now and then mistaken, and their reputation injured. In malignant affections of the joints and other parts, and encephaloid tumors, we are particularly liable to be deceived, because the sensation communicated to the fingers is so exactly like that felt when matter actually exists, that it is not only difficult, but next to impossible, to discriminate between them without taking into the account the history of the complaint, and all the attendant circumstances. To ascertain by fluctuation,* the existence of matter when deeply situated, or under muscles and fasciæ, as in the neck, thigh, or perineum, often requires a good share of the *tactus eruditus,* which experience alone can give. The manner of feeling for matter is by no means unimportant. Some surgeons employ two fingers of the same hand, placed upon the abscess a little distance apart, when a slight tap is made with one,† while the fluctuation is felt by the other, and vice versa, until all parts of the impostume are examined. Others employ the fingers of both hands in the same manner. The writer's method is to lay the fingers, or the whole hand, (supposing the collection extensive or deep under fascia or muscles,) as the case may be, upon the skin, and press so firmly as to force the matter away from under it, and then apply the other hand or fingers to another part, and press so as to force the matter back under the hand first applied, which being gently eased up, will not only feel the impulse of the matter, but perceive it passing along under it.

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* Undulation is sometimes mistaken for fluctuation. In the encephaloid tumor or disease, the former is the movement which is so deceptive. For example, the mass, pressed by one hand, is moved by that pressure in the opposite direction, and seems to strike against the other with an undulatory motion, which is often mistaken for fluctuation;‡ whereas, in fluctuation, the fluid so pressed, not only impinges against the hand, but can be felt passing or sliding as it were along beneath it.

† Percussion furnishes a very delicate, and the exploring needle a very certain test; but they are not available in every case. In relation to the latter, I would say that the surgeon should have recourse to steel as rarely as possible for solving doubtful questions.

‡ A similar undulatory movement of a very deceptive character is often perceived, when an attempt to feel for matter in a limb, is made in a transverse direction, the muscles and tissues being pushed from side to side, cause the sense of fluctuation, which is so apt to deceive the surgeon who remains satisfied with this mode of examination. To correct any misapprehension, the trial should be likewise made in the longitudinal direction: if fluctuation is then discovered, the case is clear.

If the examination be made by the alternate depression and elevation of the hands, thus relatively situated, there will be felt not only the sense of fluctuation, but the sensation of something moving or sliding back and forth beneath the fingers of either hand; generally this movement of the matter will be more sensibly and satisfactorily perceived by one hand than the other.

In more doubtful cases, when settling this important question of the existence or non-existence of matter, we should take into consideration the duration and severity of the disease; for one greatly dislikes to be mistaken. The effusion of coagulable lymph, the indispensable prerequisite to the secretion of pus, necessarily requires some time, before it can be accomplished in such quantity as to prevent the inosculation of the new vessels, by which the pus is secreted; therefore, the length of time required for matter to form, will be greatly influenced by the structure of the part affected. In inflammations of ordinary character and degree, when confined to the cellular membrane and in healthy subjects, these preliminary changes will be completed in from thirty to fifty or sixty hours, provided they have not been much interfered with by the surgeon or his remedies, so that in the course of the third day the secretion of pus may be expected to have commenced, and probably to have made a decided progress, and in one or two days more the impostume may be fit for the knife.* There is, however, so much variation in regard to time, that it will not be safe to place much dependence on it; but in doubtful cases it is proper to consider it.

We are often inquired of whether this or that inflammation will suppurate? Now, if the shooting, darting pains have been decidedly felt, other circumstances being in accordance, we may reply that such will be the probable result. It will be most prudent, however, to give a guarded prognosis. When the lymphatic glands in the neck or axilla inflame, especially in children, and the disease has advanced so as to discolor the skin, we may be pretty sure that suppuration will ensue; but before the skin is involved, we may hope to discuss the tumor.

Summarily:—The changes in the sensations, color, tumefaction and temperature of the part; the chills, shiverings, rigors, flushings, and other phenomena, together with sensible fluctuations, comprise the evidence on which we rely for determining the existence of matter.

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* Suppurations on the head, or in the mouth, particularly in connection with the gums, takes place very early, often in twenty-four or thirty-six hours. A fig, roasted or unroasted, taken into the mouth, and applied to the part, acts as a poultice, and is the best remedy that can be employed in such cases.

MODIFICATION OF MATTER.

Having glanced at the importance of attending to symptoms, as modified by the structure of the part affected, we will now briefly consider the modifications of matter from the same cause. When pus is the result of inflammation in the cellular texture, it is yellow, rather inclining to white; about the consistence of cream, not transparent; without acrimony, and when cold, inodorous. When secreted from mucous membranes, it is seldom pure; being mixed with mucus, it has a greenish yellow, as in catarrh, gonorrhœa, &c. When muscles are involved, it is more yellow. In the serous membranes, it is blended with serum, and constitutes the sero-purulent fluid, with flocculi of coagulable lymph floating in it. If the inflammation in them has been high, we find large flakes, or even cakes of fibrine, as well as small flocculi; if still more intense, the effused fluid has more or less the appearance of blood, which denotes that the *vis a tergo* has not only been violent, but unsubdued; occasionally all these varieties may be observed in the pleura, pericardium, peritoneum, and even the pia-mater. If the suppuration has been in a bone, or a bone has been involved, the matter is fetid, grayish, sometimes containing globules of oil, and gives a dark stain to the dressings or a probe. Although the abscess may have formed on and laid the bone bare, even to a considerable extent, yet if the matter is thick, ropy and of a whitish green or yellow color, and free from particles of oil or blood, I am always inclined to give a favorable prognostic in relation to the preservation and integrity of the bone itself.

The pus formed in the liver is almost unique in appearance, reddish, thick, and not unfrequently mixed with streaks of pure yellow, which I have supposed to be bile. Even when expectorated, after having found its way by ulceration, into the bronchia, and traversed the lung, it retains this appearance: Moreover it is sometimes so horribly offensive as to fill the whole house with its odor, so much so that I have more than once formed an opinion of the nature of the case the moment I entered the door.*

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* This horribly offensive smell likewise attends gangrene of the lungs—the history of the case will always lead to a correct diagnosis. Notwithstanding the extreme danger, the patient in both instances, according to my observation, generally recov-

The degree as well as location of the inflammation may be inferred from the properties and appearance of the matter; for instance, if it has been violent the matter may be sanious or even bloody;—if much below the ordinary degree, as in scrofula, it will be thin, somewhat like serum or whey: thus the appearance of matter may be turned to good account when making up a diagnosis or prognosis.

USES OF PUS.

In the production of pus we have a fluid whose office is to keep the granulations moist, and by its evaporation prevent their inflaming. It is nature's cerate. Besides floating bodies out of wounds and abscesses, its secretion may possibly tend further to empty the vessels and finish the process commenced by the effusion of fibrine and serum.

For some remarks on the treatment of abscesses, see Appendix.

OF ULCERATION.

According to the doctrines set forth in these papers, neither mortifications, scirrhus nor even ulceration, is to be considered a termination of inflammation.

Nor is ulceration a necessary accompaniment or sequel of suppuration; but a process set up *de novo,* after the inflammation (when connected with that disease) is cured by effusion or otherwise. It sometimes occurs without previous inflammation, and sometimes quite independent of it. It is the work of the absorbents, and appears to be induced by causes which modify or interfere with the nutrition of the part.

To be absorbed, solids must become fluids. We are not aware that any solid part of the body becomes a fluid during life without having lost a portion of the vital affinity by which its constituent molecules are held together, and enabled to resist the play of chemical affinities. In most instances, parts when they become useless, are taken up by absorption without being apparently subjected to chemical action.

The interdict, "ye shall not eat if ye will not work," covers the whole man: hence every fibre or tissue which ceases to be useful in the

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ers. When the abscess forms in or near the upper part of the liver, and the matter ulcerates through the diaphragm and lungs, it seldom has this offensive odor. Its course and channel through the lungs may sometimes be quite accurately traced by the help of the stethoscope.

economy, ceases to be duly nourished, and is consequently absorbed without ulceration; that being unnecessary to accomplish the object —the removal of the useless part.

Pressure or mechanical distention of some kind or other is the most generally exciting cause of ulceration. This pressure may be of two kinds. 1. A greatly distended state of the capillaries of the part by the fluids which they contain.* 2. A mechanical distention which operates on the tissues in common, and on a considerable portion of their capillary vessels. From these two kinds of pressure arise two varieties of ulceration: 1. When both exert an influence, as in inflammation and suppuration. 2. When either alone acts. In the first variety, the nutritive process is interrupted by the general distention produced by the effused fluids and the absorbents are also stimulated, by the same cause, to increased action, while the capillaries are likewise so much over-distended and stretched as to experience a diminution of the resistance afforded by the vital affinity which might have enabled them to have resisted longer, and perhaps with ultimate success, had it not been for the general distention and pressure, which not only increases their ordinary tension, but forces them out of their natural direction—contingencies which, in all their bearings, tend to weaken the nutritive process. As an example in point, I would mention an abscess in which the matter presses from within outward on the capillaries most distended by their own contents, and also by the matter pressing and urging its way to the surface, which forces the fore-mentioned capillaries to yield to the combined agency of these two causes. In this condition of things, absorption goes on with energy in different parts—internally nearest the matter, and also at the surface †

In the second variety, the capillaries being merely over-distended, (the general distention absent,) lose their vital affinity and give way. This variety most frequently occurs in constitutions vitiated by a cachectic condition of the fluids, as in scurvy; in newly formed parts as granulations, etc.—in limbs long affected with varicose veins, varicose ulcers, etc.; in such cases the destructive is more rapid than the reparative process—indeed the march of destruction is sometimes frightful. I have seen more mischief from ulceration in forty-eight hours than could be repaired in several months, by the restorative powers of nature, aided by the most skilful surgery. Ulceration is generally preceded by inflammation and suppuration, but not always, as in some cases of tumors, aneurisms, etc. Some textures, more rapidly than others, take on the ulcerative process, as the skin and mucous membranes. In the latter it is, I believe, invariably produced by inflammation.

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* Ulceration in the skin and mucous membranes—surfaces communicating with the external air, is generally caused by this species of pressure. Perhaps in strict technical language, the term *ulceration* should be confined to the lesions it occasions in those tissues.

† This last circumstance most frequently occurs in scrofulous abscesses, in which several openings are made by ulceration, through which the matter escapes.

The most remarkable feature in the process of ulceration is its tendency to advance most rapidly on the side nearest the surface. On the proximal side, the tendency is reversed. The structures on that side, instead of becoming thinner and thinner, increase in thickness and density. This may be explained upon the principle that the vital powers are stronger on the proximal than on the distal side, and that pressure, if slight, will produce a thickening of the part experiencing it; but if strong enough to make a forcible and disagreeable impression, it will impair nutrition, promote and often cause absorption; and if to such pressure inflammation be superadded, ulceration will be the certain result. Pressure, either general on all the textures of a part, as from matter within an abscess, or from the over-distention of the capillaries, is the most common, if not the only cause of ulceration, especially of that connected with inflammation. Irritation also has been regarded a cause; for irritation produces a determination of fluids to the part in which it is seated, and induces a distended state of its vessels, which, if much weakened, are unable to resist the distending force, and therefore give way—ulcerate. Debility may be very justly considered as the predisposing cause.

What is the final end of ulceration? Strictly speaking, it is to rid the system of useless or offending matter, whose presence cannot be tolerated, but which cannot be taken up by the absorbents and eliminated through some of the emunctories—as pus, extraneous bodies, extravasated fluids, in considerable quantites, and even parts which have become useless, although these are commonly removed by the absorbents without ulceration. The detachment of ligatures from an artery, or of dead from living parts, as in sloughing, could not be effected but by the process of ulceration.

In practice, it is important to remember, that some tissues and structures resist the ulcerative process much more stoutly than others, as tendons, aponeuroses, etc., for obvious reasons. Allied to ulceration is gangrene or mortification, which occurs when the disease (inflammation) is so intense that the capillaries, in some portion of the inflamed part, become so much distended, or over-distended, and act so vehemently that the pores will not relax, and consequently effusion either not take place at all, or only in a quantity too small to empty and relieve the vessels, which from over-distention and painful resistance lose their vitality; in other words, they resist until they die, which constitutes the gangrene, in which inflammation is said sometimes to terminate, the consideration of which we shall omit.

APPENDIX.

TREATMENT OF ABSCESS.

When an abscess has formed, the rule of practice is, in general, to imitate nature, and let the matter out. She does this by ulceration—the surgeon does it by incision or puncture. If the abscess is large, and somewhat chronic, its cavity, when emptied of the matter, should be filled to a moderate degree of distention with a solution of corrosive sublimate, ten or twelve grains to the pint, thrown in with a syringe, and allowed to remain a longer or shorter time, according to the uneasiness or pain it occasions, when it should be gently squeezed out, and the sides of the cavity be brought as nicely in contact as possible, and kept so by well-fitted and applied compresses and bandages, and the whole kept wet with water, cold or tepid, as is most congenial to the feelings of the patient. In this way the writer has cured many abscesses in a few days, and occasionally those of an acute character in a single day—the whole interior surfaces laid and kept in contact, have adhered and healed by the first intention, without another drop of matter being discharged.* No case has come to his knowledge in which unpleasant consequences have resulted from this method of treatment. Often, indeed, many abscesses may be speedily healed when thus treated, which if managed in the common way would have taken months to cure, or perhaps have cost the patient his life.

It was formerly supposed that the admission of air into the cavity of an abscess was the cause of the inflammation which so often came on about the third day after the evacuation of its contents; this opinion is now pretty much abandoned; but no very satisfactory explanation of the fact has been given. The writer ventures to give the following: By the withdrawal of the matter the vessels of the cyst, and those about it, relieved of the pressure which it caused, are soon filled and over-distended with blood, to a degree which stops the secretion. This process requires about three days, for the effusion of lymph and the secretion of pus, after which the abscess continues to discharge good or ill-conditioned matter for a longer or shorter time. Now, by using the injection as proposed, we anticipate nature's process, and produce a new inflammation and effusion of coagulable lymph, by which the surfaces are glued together, and in which new or primitive vessels, shooting from side to side, inosculate and cause the abscess to heal like a wound, by the first intention; thus the secondary inflammation,* to which we have alluded, and which so often comes on a few days after the evacuation of collections of matter, is prevented, and the patient saved from all the hazard and suffering incident to such an occurrence.

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* The tincture of iodine is an excellent substitute for the bi-chloride of mercury. I have seen it used in the N. Y. Hospital, by Dr. Buck, for the cure of suppurated buboes, with very happy results.

In chronic abscesses, in which the secretion is vitiated and the constitution cachectic, the injection of the solution of the corrosive sublimate is the most important remedy, especially when associated with the internal use of cantharides, either in tincture or substance—gradually increased so as to produce strangury—the only sign by which we know that the system has been brought under its influence, just as mercury is known to have affected the constitution, when its specific effects are manifested in the gums. The strangury thus induced is immediately removed by the single introduction of a catheter; or less promptly by the spirits of camphor in sweetened milk, frequently repeated. The use of the medicine should be suspended—and resumed when the strangury has left, taking care to begin with a diminished dose, *i. e.* somewhat less than that by which the specific effect was produced.

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* When the abscess is large the inflammation is dangerous from the extent of inflamed surface, and the secretion which follows is almost always of a highly vitiatic character, especially if the constitution is bad or much weakened.

PART SECOND.

CRITICAL ANALYSIS.

Art. VI.—*Lectures on the Diseases of Infancy and Childhood.* By Charles West, M. D., Fellow of the Royal College of Physicians, Senior Physician to the Royal Infirmary for Children, Physician-Accoucheur to the Middlesex Hospital, and Lecturer on Midwifery at St. Bartholomew's Hospital. Philadelphia: Lea & Blanchard. 1850. 8vo. pp. 451.

The American reprint of this valuable work having just been completed, we hasten to lay before our readers a short analysis of its contents. Before doing so, however, we have thought best to state that the author of these lectures succeeded Dr. Willis as physician to the children's infirmary, in 1842. Since which time very nearly 14,000 cases of disease in children have been presented to his notice. In the vast field for observation laid open before him, he has kept accurate notes of the diseases of 600, as well as the results of 180 dissections of cases which terminated fatally. When we first saw the announcement, in the summer of 1847, that Dr. West was about to present, in the form of lectures, the rich fruits of his experience to the pupils of the Middlesex Hospital, we were, to say the least, pleased. And when we read these lectures, as they were published in the London Medical Gazette, our most ardent wishes were realized. From the material at the disposal of Dr. W., we had good reason to expect that a work alike honorable to himself and the profession would be the result. And now that it is published to the American profession we feel confident in pointing to it as one eminently worthy of their careful attention.

The work before us is composed of thirty-nine lectures, the first of which is an introductory, detailing some of the difficulties which lie in the way of the successful cultivation of the knowledge of the diseases of children, after which the author passes in short review the general plan and object of this course of lectures. As it regards the classification which he adopts, it is the most simple possible, viz.: that of arranging the diseases according to the systems which they affect. Entering upon the consideration of the diseases of children by this classification, Dr. West commences with the diseases of the brain and nervous system. His reasons for doing so are found in the fact, that besides the general interest and importance of these affections, at whatever age they may occur, their extreme frequency in early life gives them a strong claim to notice. The fact that there is a great predominance of the disorders of the nervous system in the diseases of children is too remarkable to be overlooked. The following table, taken from the fifth report of the registrar-general, will tend to illustrate this fact.

TABLE,

Showing the proportion per cent. of deaths from different causes in childhood, in the metropolis, as compared with subsequent life.

	Under 1 year	Bet'n 1 and 3	Bet'n 3 and 5	Under 5	5 to 10	10to15	At all ages above 15.
From diseases of the nervous system,	32·5	19·5	18.3	25·4	15·8	9·7	9·1
From diseases of the Frrespiratory system	28·2	41	37·2	34·2	30·9	34·1	31·5
om diseases of the digestive system,	17·5	13·5	5·2	14·2	6·5	8·3	5·2

The susceptibility of the nervous system, in infancy and childhood, to disease, will be found to have a clear anatomical reason or explanation, based as it is upon the rapid development of the brain ; it doubles its weight during the first two years of life, and reaches very nearly its maximum during the seventh year. With this rapid state of growth there must be a highly-active state of the nutrition, or vegetable processes in this organ, which renders it, together with the nervous system generally, extremely liable to diseased actions, by exciting causes which would have but little prejudicial influence upon other organs, or upon the same system in adults. Nor is this all ; there is in the cerebral circulation of children a greater susceptibility to variations or deviations from the normal state—this fact, too, has an anatomical reason or explanation, which is founded upon the non-complete development of the infant. The cranium of the adult is a complete bony case, and the density of the brain forms a support to the vessels, which are freely distributed through it. Now, if we bear in mind the fact so forcibly established by Dr. Burrows, in his admirable work on the disorders of the cerebral circulation, viz. that the quantity of blood which the vessels of the brain contains, is not always the same," even in the adult life, it will by no means be difficult to discover, that in the infant or child, where the conditions of physical development are far different, disorder or derangement of the circulation are much more liable to occur, and when once established, as is proven by observation, still more apt to end in death. To the peculiar physical condition of the child then must we attribute the frequency of convulsions, and the diseases of the nervous system generally.

In treating of the *diseases of the brain* and *nervous system*, Dr. West first speaks of *convulsions*, after which he enters into a consideration of the various forms of *cerebral congestions* and hemorrhage, *inflammatory affections*, comprising the different varieties of *hydrocephalus, phlebitis of the sinuses of the dura-mater, hypertrophy of the brain, hydrocephaloid disease, tubercle, hydatid and cancer of the brain.* After which, the *diseases of the spinal cord and its membranes*, comprising *irritation and congestion, inflammation, trismus*, etc.; and ends this division of the course, with an interesting account of *night terrors, epilepsy, chorea, paralysis, and fascial hemiplegia in the new-born infant*—in all comprising twelve lectures.

It is not our intention to follow Dr. West minutely through the whole catalogue of diseases which are enumerated above, but only such as are, from their obstinacy or frequent occurrence, of great practical importance to the practitioner. Convulsions first claim the attention of our author. And according to him:

> The grand reason of their frequency is, no doubt, to be found in the predominance of the spinal over the cerebral system in early life. In the adult, the controlling power of the brain checks the display of those reflex movements which become at once evident if disease heighten the excitability of the spinal cord, or cuts off the influence of the brain from the paralyzed limb, or even if sleep suspend that influence for a season. When the child is born, the brain is but imperfectly developed, its functions are most humble, and convulsions are then so frequent, that they are computed to occasion 74 per cent. of all deaths which take place during the first year of existence from diseases of the nervous system. In the next two years the brain more than doubles its weight, and deaths from convulsions sink to nearly a third of their former frequency. In proportion as the brain increases in size, and its

structure acquires perfection, and its higher functions becomes displayed, convulsions grow less and less frequent, until from the 10th to the 15th year they cause less than three per cent., and above 15, less than one per cent., of the deaths from the diseases of the nervous system.

Of the value of convulsions as indications of cerebral disease, among practitioners generally, very confused notions exist. This arises from the fact, that the great variety of circumstances, under which they occur, renders it difficult for us rightly to interpret their meaning. On this point our author thus speaks: "Perhaps it will help us to understand it, (the phenomenon of convulsions,) if we bear in mind that a large proportion of cases of convulsions in the infant answer to delirium in the adult. In early life the superintendence of the motor power is the chief function of the brain, which has not yet attained to its highest office, as the organ of intellect. Hence the convulsions which you may observe to come on in infancy, in the course of some acute disease—such as inflammation of the lungs—do not import that any new malady has invaded the brain, but simply that the disease is so serious as to disturb the due performance of all the functions of the organism, and of those of the brain in common with the rest." Again, "Convulsions at other times may take place in infancy, not as the result of any abiding disease of the brain, but simply in consequence of those anatomical peculiaries which allow of a much more sudden, and more considerable congestion of the cerebral vessels than can occur in the adult." Of course convulsions from these conditions, are not often the immediate cause of death. Grave as they may appear to the young practitioner, they have an easy explanation. They are as in the adult, sometimes ushered in by shivering, often not: they may be induced by constipated bowels, by the presence of worms, or by the pressure of a tooth upon a swollen gum; and from this we gain the first indication, viz. that of ascertaining, as soon as possible in the commencement, the seat of the irritation which produces such tumultuous action. In seeking for the cause, we must not lose sight of the fact, that if a child be laboring under whooping-cough, they point to a congested state of the brain, the consequence of impeded circulation through the lungs; or that if the fits have come on in an advanced stage of some serious disease, they are, as our author correctly observes, probably only the indications that Death is busy at the centre of vitality.

In order to ascertain the cause, we must of necessity acquaint ourselves first with the symptoms of convulsion which arise from organic disease. On this point we must remember, that "in cases of apoplexy, of intense cerebral congestion, and of phrenitis, convulsions occur at a very early period of the disease, but even here extreme drowsiness, great pain in the head, and vomiting, usually precede for a few hours the convulsive seizure. Dr. W. thus speaks:

> When the brain is seriously involved, the recovery from the convulsions is very imperfect, coma perhaps succeeding to them, or the evidence of cerebral disease being so marked as to leave no doubt of the brain being affected. Tubercle sometimes remains for a long time after its deposition in the brain, without giving rise to any well-marked symptoms, its presence being at length announced by a fit of convulsions. These convulsions are seldom at first very severe, but you will learn to dread them more than those which assume a more formidable appearance, from noticing that one side is either exclusively affected, or, at least, that there is a marked preponderance of the affection on one side. It will be well to bear in mind, too, that convulsions may occur from the want of blood in the brain, as well as from its excess, and that the convulsions which come on in some ill-nourished infants may indicate a state of atrophy of the brain.

Of the symptoms of convulsions, we take it for granted, that our readers are all well acquainted, and pass our author's enumeration and description of them, to notice whatever of novelty there may be in the following lecture on congestion of the brain. This state is one of frequent occurrence, as is fully seen in the onset of eruptive fevers, in the condition of teething, or, as is often met with in large cities, from a languid circulation from the want of pure air, or of nourishing and sufficient food. Again, post-mortem statistics show that, after death, a congested state of the vessels of the brain is found frequently to exist. Dr. Mauthner, of Vienna,* on the examination of the bodies of 229 children, who had died of various diseases, found cerebral congestion in 186. It is not from the circumstance, that this state constitutes a serious complication of many other diseases, that it claims the attention of the practitioner, but that it derives its importance from the fact, that it constitutes the first and curable state of many diseases, which, if not arrested at the very onset, very soon pass beyond the resources of the art of medicine.

For the treatment of cerebral congestion, Dr. W. relies upon the established rules of practice. If the child has partaken of food shortly before the occurrence, and there is reason to believe that a loaded condition of the stomach exists, an emetic should be prescribed. If the symtoms follow the receipt of a blow, the physician should not lose sight of the danger of inflammation of the brain supervening. Or, if the head affection be preceded by long-continued gastric or intestinal disturbance, he should bear in mind that a more cautious treatment is indicated, and should be pursued, lest a serious mischief, by doing too much, be the result. In relation to blood-letting, Dr. W. thus cautiously and practically treats:

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* Die Krankheiten des Gehirns und Rückenmarks bei Kindern, 8vo. Wein, 1844.

> There are, however, but few exceptions to the rule which prescribes the abstraction of blood, either locally or generally, as one of the most important remedies in cases of active cerebral congestion. If the symptoms set in violently, you must deplete freely, and will find that relief will follow more speedily on the abstraction of blood from the jugular vein than on venesection or the application of leeches. It is not easy to define exactly the quantity of blood which may be drawn, but from two to three ounces would probably be as much as you would ever be warranted in taking from a child a year old, and the appearance of manifest relief to the symptoms should be a signal to you for stopping its flow, even before that quantity had been obtained. The removal of too large a quantity of blood would be at least as mischievous as the abstraction of too little, while you would run some hazard of confounding the effects of loss of blood with those of its excess, and might thus be led further into error. It is, therefore, better (although children bear repeated blood-letting ill,) to take but a moderate quantity of blood at first; to watch its effects, and to repeat the bleeding in a few hours, if it be necessary, rather than to subject the system to the shock of an excessive loss of blood.

In the auxiliary treatment proposed, we find nothing particularly worthy of note. "If the case be associated with much diarrhœa and general impairment of nutrition, the extract of bark may be given two or three times a day, with a few drops of sal-volatile, or the compound tincture of bark may be given." Particular caution should be taken by the practitioner, that the head symptoms do not lead him to keep the child on a low diet; and he should remember that, when the nutrition is much impaired, farinaceous food is not usually digested well: he must therefore be sparing of arrow-root, and give milk and water, or milk and water with isinglass, or animal tea or broth. If the broth should purge, as it sometimes does, the white decoction of Sydenham, made by boiling half an ounce of hartshorn shavings and the inside of a roll, in three pints of water till reduced to two, and sweetened, when it may be given alone, or with the addition of one part of milk, may be resorted to. As the child improves, our author recommends the ferro-citrate of quinine as one of the best tonics which can be made use of.

Lecture IV. is occupied with the consideration of cerebral hemorrhage. This is an extremely rare affection. Our author has met with only two cases of distinct extravasation of blood in the substance of the brain. As it regards the symptoms of this state, all writers, even those, who, like MM. Rilliet and Barthez, have thrown the most light on the anatomy and pathology of it, concur in representing its symptoms as exceedingly obscure. Paralysis, a symptom in the adult, considered almost pathognomonic of this state, in infancy is generally absent. We say generally, for M. Legendre, in his admirable Anatomical and Pathological Researches on the Diseases of Children, states that it was observed in one only out of nine cases, and MM. Rilliet and Barthez, in one out of seventeen cases. In speaking of this subject, our author says:

> The absence of paralytic symptoms, however, is not the sole cause of the obscurity of these cases, but the indications of cerebral disturbance, by which they are attended, vary greatly in kind as well as in degree. The sudden occurrence of violent convulsions, and their frequent return, alternating with spasmodic contraction of the fingers and toes in the intervals, appear to be the most frequent indications of the effusion of blood upon the surface of the brain. I need not say, however, that such symptoms, taken alone, would by no means justify you in inferring that its effusion had taken place. Many circumstances having reference with the previous history of the child, as well as to its present condition, must be taken into account in forming a diagnosis. Hemorrhage into the arachnoid cavity is most frequent in early childhood,—symptoms such as have been enumerated then would acquire additional diagnostic importance in proportion to the tender age of the child in whom they occurred. The probability of their betokening this accident would be still further strengthened if the child who experienced them had previously suffered from frequent attacks of cerebral congestion, or had been recently exposed to the sun, without proper covering to the head; or had been placed in other circumstances calculated to favor determination of blood to the head.

Concerning the treatment of this disease, but little can be said; and Dr. W., in reference to this, makes the remark, that "when the symptoms of a disease are so obscure, it would be idle to lay down rules for its cure." Passing from the consideration of this subject, which has more of a pathological than a practical interest, our author, in Lecture V., takes up the progress, morbid appearances and symptoms of the inflammatory affections of the brain.

Few of the diseases of childhood are more serious than those of an inflammatory character. They produce, according to Dr. W., "more than ten per cent. of all the deaths under five years of age in London." While they are so especially the diseases of early life, that 81·3 per cent. of all the cases of fatal inflammation of the brain occurred in children under five years of age, 90·5 per cent. before the age of ten, and 92·6 per cent. before the age of fifteen. Strange to say, that though the frequency of these affections are so notoriously common, that there should have been so little notice taken of them by the older writers. For if we turn to the writings of any of the old physicians, we shall find in them no mention of inflammation of the brain in childhood. A ready solution of this circumstance is found in the fact, that to convulsions, which form a prominent symptom in most cases of this disease, the mortality was attributed by them. Cerebral inflammations, occurring in scrofulous subjects, Dr. W. calls acute hydrocephalus, and simple inflammation of the brain encephalitis, thus leading us "to the conclusion, that inflammation of the brain occurs in early life, under two different conditions. That form which arises in scrofulous subjects, is of most frequent occurrence, and coming as it does from a tuberculous cachexia, is the result of tuberculous deposit in the brain or its membranes." The appearances found after death in cases of acute hydrocephalus, are divided by our author into two classes, according as they are the result of inflammation, or of the deposit of tubercle. "Changes due to both these causes are often found in the membranes of the brain, as well as in its substance. The alterations presented by the membranes of the brain, are often comparatively trivial, but the membranes of the base of this organ almost always show unequivocal traces of inflammatory action." On this point, Dr. W. remarks:

> The predominance of the affection of the membranes at the base of the brain has indeed been regarded by some writers as pathognomonic of scrofulous inflammation of the organ; and though this rule is not without exception, still it holds good in the vast majority of cases. In 25 out of 39 fatal cases of acute hydrocephalus, in which I carefully recorded the condition of the membranes, those at the base of the brain were found to be the seat of disease more or less extensive, and always more considerable than that which existed at the vertex. In one of the cases in which the membranes at the base were healthy, there was a good deal of serous effusion beneath the arachnoid at the convexity; and in another instance there was some fluid in the sac of the arachnoid, and the pia-mater, covering the upper surface of the brain, was greatly injected; but in the two remaining cases the membranes of the upper as well as those of the lower part of the brain were perfectly healthy.

There is a peculiar condition of the membranes of the brain, which, within a few years past, has attracted the attention of observers which claims our notice. It consists in a peculiar granular appearance which various parts present in this disease, occasioned by the presence of tuberculous deposits. They often assume, according to our author, the form of a minute, flattened, spheroidal bodies, of the size of a small pin's head, or smaller, and either of a yellowish color, and rather friable under pressure, or grayish, semi-transparent, and resistant, almost exactly resembling the gray granulations which are sometimes seen in the lungs or pluræ of phthisical subjects. They are sometimes met with in what would seem to be an earlier stage, when they appear like small opaque spots of a dead white color, much smaller than those described, and communicating no preceptible roughness to the membrane· These bodies, says Dr. West, do not always retain the appearance of distinct granules, but sometimes on separating two folds of the arachnoid, which had seemed to be glued together by an effusion of yellow lymph, or concrete pus, we find that the matter which formed these adhesions is not homogenous, but that it consists of an aggregation of minute granular bodies, connected together by the lymph or pus in which they are imbedded. Dr. W. gives the following reasons, which he believes to be conclusive as the proof that these bodies are tubercular in their nature :

1st, That they are always associated with tubercle elsewhere ;

2d, That their abundance is not in proportion to the amount of inflammatory mischief ;

3d, That they are sometimes met with in cases where no head symptoms were observed during life, and unconnected with any sign of inflammation discovered after death.

4th, That their chemical composition and their microscopic structure are identical with those of tubercle in other organs of the body.

The alterations in the substance of the brain itself, are not less important. So also with that distention of its cavities with fluid which is frequently found. Our author has often found the cerebral substance healthy, as low down as the centre of Vieussens. But though unaltered to the eye, a diminution of consistence is often perceptible as the ventricles are approached. Occasionally the whole brain feels softer than natural, while at other times, though not actually softened, it is infiltrated with fluid, as though it had soaked up the serum from the ventricles. Dr. W. believes that the presence of a larger quantity of fluid than natural in the lateral ventricles, is of almost constant occurrence. In twenty-eight out of thirty cases, in which death took place with symptoms of acute hydrocephalus, he found an appreciable quantity of fluid in the ventricles; and in twenty-six of these cases, the quantity was considerable, amounting to several ounces. This increase of serum is, in most cases, associated with a notable change in the surrounding cerebral substance. This change consists in the loss of the natural firmness of the central parts of the brain, which varies in a great degree. The parts are occasionally found completely disorganized, forming a pulpy mass that is easily washed away by a stream of water. There is an anæmic appearance of the parts in the vicinity of this softening. Rokitansky regards the condition as one of acute œdema, and often, though not invariably, associated with inflammation. On this point, Dr. W. says:

> One very strong proof of the close connexion that subsists between softening of the brain and an inflammatory process going on in the organ is furnished by the changes which, in many of these cases, may be observed in the lining membrane of the ventricles. In 14 cases of acute hydrocephalus, in which central softening of the brain co-existed with the presence of fluid in the ventricles, accurate notes were taken of the condition of their lining, and in three instances only was it found to be healthy. In one of these three cases, the central softening was very inconsiderable, and in the other two cases the softening of the central parts was associated with very marked softening of other parts of the brain, which were altered in color as well as in consistence. The lining of the ventricles in the remaining 11 cases was notably altered, although the degree of its change was very variable. The first alteration that takes place in it is the loss of transparency, which is often, though not always, associated with a turgid state of its vessels. It next acquires an unnatural toughness, so that it can be raised by the point of the scalpel; and sometimes it is not merely opaque and tough, but greatly thickened, forming a dense firm membrane: and once or twice I have noticed its inner surface present a slightly granular appearance. These changes in the membrane do not bear any certain relation either to the quantity of fluid, or to the degree of central softening, though it is rare to find an extreme degree of change in the lining of the ventricles without a considerable quantity of fluid in their cavity, and great softening of the brain around them.

Our limited space forbids our entering into a notice of our author's observations on the symptoms or prognosis of the disease, and we proceed to the treatment which he has proposed. On this point but little new can be expected, for long since have the most skilful of the profession come to the conclusion, that the only treatment likely to avail much, is the prophylactic; and that, if we would hope to succeed, we must treat the mere threatenings of the disease, and not remain inactive until the malady becomes fully developed before we resort to treatment. Our author states, that "the prophylactic treatment of hydrocephalus must be, in the main, the prophylactic treatment of consumption." The reason for these views are obvious; since the disease often supervenes on more or less definite phthisical symptoms, and tubercle is invariably present in the various organs of children who have died of hydrocephalus.

Simple inflammation of the brain, or encephalitis, is extremely rare as an idiopathic affection. In this disease, "we find the cerebral membranes intensely injected, the effusion of lymph or pus abundant, especially about the convex surface of the brain, where it sometimes forms a layer concealing the convolutions from view. Moreover, the fluid that occupies the cavity of the arachnoid, as well as that within the ventricles, is turbid and mixed with lymph, while the membranes present no traces of that granular appearance so remarkable in true hydrocephalus, and the various organs of the body are free from tubercle."

Phlebetis of the sinuses of the dura-mater "is generally the consequence of long-continued otorrhœa." It has been connected with disease of the frontal linus, and has been known to follow an abscess of the scalp, and has coincided with pleuritic effusion, (Tonnell.) Dr. W. says, that it has no symptom in any way pathognomonic of its occurrence.

The treatment of chronic hydrocephalus is summed up in a very satisfactory manner. Dr. W., after reviewing the whole matter, states that he does "not know of any plan, on the whole, more likely to succeed, than that which Professor Gölis, of Vienna, recommended as the result of many years' experience." This plan is thus described:

> He advises that the head of the child be shorn, or its hair cut close, and that one or two drachms of the mild mercurial ointment be rubbed daily into its scalp. At the same time, the head is to be kept constantly covered with a flannel cap, to prevent the risk of the perspiration being checked by the cold air, and gr. ¼, or gr. ss. of calomel, should be given twice a day, unless diarrhœa come on, when the inunction alone must be employed. This plan should be persevered in for thirty or forty days, when, if the patient appear improving, the remedies may be very gradually diminished, but the cap should be still worn even after the inunction has been discontinued. Should no great improvement appear, after a lapse of six or eight weeks, some mild diuretic may be conjoined with the other remedies, and a couple of issues may be inserted in the occiput. For this measure, however, I have always substituted the frequent application of blisters to the back of the neck.

In relation to the treatment of this disease by puncture, our author thinks we are justified in trying the operation in a case that seems in itself favorable for the experiment. He says:

I should regard any case as favorable for the operation which on the whole there was good ground for believing to be one of external hydrocephalus, or in which the enlargement of the head had not been attended with indications of active cerebral disease. Though on the whole less promising, I should not reject the operation simply because enlargement of the head had been congenital; while I should always be more ready to operate if nutrition were well performed, than if the child were emaciated. I would not, however, as a general rule, have you operate simply because the head is large; for it does not appear that diminution in its size has resulted from the puncture, but only arrest of its enlargement; and if the disease be at a stand-still, and the cerebral functions be tolerable well performed, you would risk much with the chance of gaining but very little.

The proper situaton for the puncture is the coronal suture, about an inch, or an inch-and-a-half, from the anterior fontanelle. A fine trocar and canula are the best instruments; and care must be taken, not merely to withdraw only a very few ounces of fluid at a time, but to keep up pressure both during the escape of the fluid as well as afterwards.

We regret that our space will not permit of our noticing certain portions of the remaining diseases of the nervous system, enumerated in the commencement of this notice. There is, however, one portion which we cannot pass by, viz.: that which relates to *trismus.* It is not a little remarkable, that the most elaborate and careful paper on this subject in the English language, should have escaped the notice of Dr. W.* This cannot arise from the fact that the disease did not attract the notice of our author, for he mentions having seen three cases in the Dublin Lying-in Hospital, and notices its remarkable frequency in hot climates, and also the epidemic which occurred in the Lying-in Hospital at Stockholm, in 1834. We need not, however, be surprised at this circumstance, for we have not as yet seen in this work among the many references made to the literature of the diseases of children, a single notice of an American publication!

Lecture XIII. commences with the diseases of the respiratory organs. Of their frequency and fatality all are familiar. In the first part of this Lecture, the peculiarities of the respiratory function in early life is considered, after which the history, pathology, symptoms, diagnosis and treatment of imperfect expansion of the lungs, is entered upon. This is the condition of the lung, which has received from Förg and Rokitansky the epithet of *atelectasis.* Following this, our author treats successively of collapse of the lung, and induration of the cellular tissue, catarrh, the various forms of pneumonia and bronchitis, œdema, gangrene and pleurisy, after which follow croup, spasm of the glottis, and whooping cough, and closes this division of the diseases of children with a very full description of pulmonary phthisis.

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* Dr. Sims' paper in the Americal Journal of Medical Science, 1846–48.

Of pneumonia we must of necessity enter into a comparatively short consideration. In Lectures XV. and XVI. lobar and lobular pneumonia is discussed. Our notice of the author's views, with the exception of the special treatment of these diseases, must be confined to the following selections:

> The exaggerated estimate of the frequency of lobular pneumonia, and the peculiar character of the field presented at the Hospital for Children at Paris, in which the most diligent and most successful students of children's diseases labored, led to an underrating of the frequency and importance of lobar pneumonia such as is met with in the adult; and hence you will find but little said concerning it in many most valuable works of our continental neighbors. *Lobar pneumonia*, however, is often met with in early life both as an idiopathic and a secondary affection, giving rise to the same morbid appearances as in the adult, and requiring a very similar treatment.

On the special treatment of pneumonia, our author makes some valuable suggestions. In relation to the use of blood-letting he speaks decided. "In the management of idiopathic pneumonia, occurring in previously healthy children, whatever be their age, *depletion* is as important a remedy as in the adult; nor will the most energetic employment of any other antiphlogistic measure enable us to dispense with its use." Tartar emetic, under proper restrictions, he considers a remedy of no less value in early life; so also of mercury. Of these remedies he remarks:

> It is not safe, however, in the great majority of cases, to place our dependence entirely on the administration of antimony. In cases of secondary pneumonia, especially if the affection of the parenchyma of the lungs were preceded by well-marked bronchitic symptoms, antimony may sometimes be given at once without having recourse to the abstraction of blood previously, but, in pure idiopathic pneumonia, depletion, either general or local, ought always to precede its use. When antimony does good it generally gives an earnest of that good within a few hours from its first administration, and the production of some sensible effect, such as vomiting or very decided nausea, has appeared to to me to be a condition of its utility; unlike what we observe in the adult, in whom the good results which it produces are sometimes independent of any appreciable influence on the general condition of the patient. When complete tolerance of the medicine has been established, our subsequent conduct must be determined by the results of auscul-

tation. Should that inform us that the physical condition of the lung has greatly improved, as well as the general state of the patient, the use of the remedy may be persevered in at somewhat longer intervals. If the signs of inflammation be advancing, and have become perceptible in portions of lung previously free from disease, mercury must be employed, which may be combined with small doses of antimony, while large doses of that remedy may still be given to combat any sudden increase of fever or dyspnœa that may chance to supervene. If, notwithstanding a manifest diminution of the fever and reduction of the dyspnœa, bronchial breathing should have become distinctly audible, mercurials must at once be substituted for the antimony; and the existence in any case of extensive or well-marked bronchial respiration should be regarded as of itself contra-indicating the antimonial plan of treatment. It is not my intention to say, that after the supervention of bronchial respiration antimony ought never to be given, but only that it should not be employed except in small doses, and in combination with other remedies.

The above suggestions of Dr. W. are deserving the careful attention of the profession. No argument is necessary to show that he who heeds them most will be the most successful in the treatment of pneumonia of children.* Our author gives preference to the application of stimulating liniments over blisters. "The risk," says he, "of sores taking on an unhealthy character, appears to be greater after inflammation of the lungs, than after almost any other disease; and it may be added, that the risk is still greater in those cases of secondary pneumonia that supervenes on measles."

Croup receives a full and extended notice from our author. There is, however, nothing of novelty presented in his enumeration of the means of treatment to be resorted to. The local application of a solution of nitrate of silver to the fauces is mentioned, but nothing is said of its application to the larynx. This auxiliary aid to the materials of cure which we possess, has now been before the profession of this country for some time, and judging from the number of successful cures reported in the several journals of this country, it may be safely said that it claims a place second to no other at our command.†

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* We cannot allow this opportunity to pass by without recalling the attention of our readers to the exceedingly valuable essays on the use of these remedies in the diseases of children, by Prof. J. B. Beck, of this city, published recently in this Journal, and since re-published in a separate form, under the title of "Infant Therapeutics." It is one of the choicest contributions to the literature of this subject, and at the time were alike copied extensively into the journals of Europe and this country.

† For the method of using this remedy, the reader is referred to Volume I., new series, page 91, of this Journal.

Lecture XXIV commences the consideration of pulmonary phthisis in children. This disease evinces in its character, in the young subject, sufficient differences from that of the old, to attract the attention of the observing physician. "These differences," says Dr. W., "are not merely curious, but they influence our prognosis and modify our treatment." One great difference between the tubercular cachexia in childhood and the adult, consists in the same organs not being equally liable to it at the two periods of life. A second peculiarity is found in the differences in the anatomical characters of tubercles in the lungs at this period. And a third peculiarity consists in the great rarity of cavities in the lungs during early life. Other peculiarities are mentioned by our author, but as they are less important, we pass on to the recapitulation of the peculiarities of the symptoms and general characteristics of the disease in early life. These are, according to Dr. West:

1st. The frequent latency of the thoracic symptoms during its early stages.

2d. The almost invariable absence of hemoptysis at the commencement of the disease, and its comparatively rare occurrence during its subsequent progress.

3d. The partial or complete absence of expectoration.

4th. The rarity of profuse general sweats; and the ill-marked character of the hectic symptoms.

5th. The frequency with which death takes place from intercurrent bronchitis or pneumonia.

Bronchial phthisis is characterized by—

1st. The frequent development of its symptoms out of one or more attacks of bronchitis.

2d. The peculiar paroxysmal cough which attends it, resembling that of incipient pertussis.

3d. The great and frequent fluctuations in the patient's condition, and the occasional, apparently causeless, aggravation, both of the cough and dyspnœa.

In very early infancy, phthisis is remarkable for the very frequent latency of the chest symptoms, which, through its entire course, are often entirely merged in the signs of impaired nutrition.

The most important peculiarities in the auscultatory phenomena of consumption in the child are—

1st. The smaller value of coarse respiration, prolonged expiration, and interrupted breathing, owing to their general diffusion over the chest, and to their occasional existence independent of phthisis.

2d. The apparent, and to some extent the real, exaggeration of the signs both of early and of far-advanced disease of the lungs, in some cases of bronchial phthisis.

3d. The loss of that information which the phenomena of the voice furnish in the case of the adult.

4th. The small value of inequality of breathing in the two lungs.

5th. The difficulty of detecting minute variations in the sonoriety of the chest; and

6th. The existence of dulness in the interscapular region, together with moderate resonance of the upper parts of the chest, and tolerably good respiration there, which are characteristic of the presence of enlarged bronchial glands.

The treatment of this malady is thus summed up by Dr. W.:

Iron, quinine, and the mineral acids, are the most important of our tonic remedies; and for these the extract of bark and the extract of logwood may be substituted, if much tendency exists to a relaxed state of the bowels. In cases where the glands of the neck are affected, and where there seems to be reason for supposing that the disease approximates to the bronchial phthisis, the syrup of the iodide of iron may be employed with advantage. The sickness and the paroxysmal cough are best relieved by the hydrocyanic acid, with which the liquor cinchonæ of Mr. Battley may be combined, in cases where we are afraid to venture on any but the mildest tonics. Among local measures, the use of stimulating liniments to the chest is even more valuable in early life than in the adult; and sometimes the application of a blister about the size of a shilling, under one or other clavicle, and its frequent repetition, is followed by a very great amendment in the patient's condition, and by a marked improvement in the physical signs furnished by the subjacent lung.

I have very rarely employed local depletion, except in the treatment of the pneumonia which so often attacks the phthisical patient; but it has then seemed sometimes to be of great service; and it will probably be safer to trust to a moderate abstraction of blood by leeches, followed by small doses of antimonials, than to administer mercury, or to give antimony in larger doses without previous depletion. The habitual cough of phthisis requires small doses of ipecacuanha wine, combined or not with antimony and laudanum, or compound tincture of camphor, in small doses—remedies which, on account of their strength being definite, are always to be preferred, in the management of the affections of childhood, to a preparation so variable as the syrup of poppies. Opiates in various forms, and for various purposes, may be needed to check diarrhœa or to relieve suffering; and you must not allow any preconceived notion of the danger of employing opium in infantile diseases to prevent your having recourse to so valuable a medicine.

Our notice of this work has already extended farther than we anticipated when we commenced. We must, therefore, leave the consideration of the remaining portion of the volume before us to our next number.

BIBLIOGRAPHICAL NOTICES.

Art. VII.—*A Dissertation on the Practice of Medicine.* Containing an account of the Causes, Symptoms, and Treatment of Diseases; and adapted to the Use of Physicians and Families. By Tomlinson Fort, M. D. Milledgeville, Ga. 1849. 8vo. pp. 740.

We have here presented for the consideration of the profession, as well as the public, the practice of medicine, the diseases embraced in the department of obstetrics, the ordinary practice of surgery, and a dispensatory, compressed within 740 octavo pages, rather coarsely printed. It will not be our aim, neither will our space on the present occasion permit us to discuss at length the utility of works like this, to either the profession or public, even when well prepared. The motives which lead to their preparation may be pure, but the results which flow from them may and do prove generally most disastrous to both the interests of the profession in particular and the public good in general. Were we to first place in the hands of the child in letters a work containing the principles of philosophy instead of the alphabet of our language, we could not legitimately expect that much utility would flow from such a source. Again, should we place in the hands of the student the alphabet instead of the grammar of our language, and were this to be pursued exclusively, little or no progress would be the result. Such appears to us to be the relative position of works like this intended for professional instruction and public reading. Their effects upon the professional mind, especially the younger portion of it, are not certainly to elevate or advance its interests, and their utility to the public is at least questionable. When we first saw this work announced in one of our Southern cotemporaries, we felt almost certain that something valuable to the profession would soon be laid before us. But when the work was laid upon our table by our publisher, and a little time had been allowed us, we arose from the perusal of it, to say the least much disappointed. Much as we desire to see the literature of our profession encouraged and supported by *all*, we still more desire to see its professional tone and spirit elevated—not by bringing it down to the standard of the public mind, neither elevating it to that state of transcendentalism which is vague, unsatisfactory, and illusive, but to that which carries our knowledge beyond empiricism, and only rests when the fundamendal principles of medical truth and knowledge rests. It is this state which we believe, every individual member of our profession should untiringly and devoutly labor for; and it is this state also which, if we mistake not the indications of the times we are fast approaching. The isolated facts and the empirical observations of past centuries are being arranged in this—each forming in its place a part and aiding in the erection of the temple of truth and knowledge, where the votaries of medical science may worship.

From this much which we have said, our readers may safely infer that we do not consider this volume as one calculated greatly to increase their knowledge or instruct their judgments. What the author might have done, had he confined his dissertation to the profession strictly, it is difficult for us to say. Of this much, however, we feel well assured, viz.: that the present work adds but little to that stock of knowledge sought for and demanded by the wants of the profession.

Art. VIII.—*Essays on Pathology and Therapeutics.* Being the substance of the Course of Lectures delivered by Samuel Henry Dickson, M. D., late Professor of the Institutes and Practice of Medicine in the Medical College of the State of South Carolina, now of the Theory and Practice of Medicine of the University of the City of New-York. New-York: S. S. & W. Wood. 1845. 2 vols. 8vo. pp. 588—651.

To the kindness and liberality of the publishers we are indebted for a copy of this excellent and valuable work, which has been laid upon our table. It is with much pleasure that we call the attention of our readers to these essays. Possessing as they do superior claims to the attention of the southern student and practitioner for whom they were originally intended, they are not devoid of practical interest and value to the practitioner of any clime or country. The portraits of disease here presented are striking and characteristic. Accuracy of description is a peculiar feature of the work, and when we say that these essays have placed their author in the small list of "classic authors" of our profession, we but reiterate the opinion expressed by all who have given them a perusal. In style they possess the grace and ease of diction which characterize the "Study of Medicine" of Good, and in practical detail and suggestions, the peculiar merits of Stokes, Copland and Watson.

ART. IX.—*Congressional Medical Reports—Thirteenth Congress, Second Session. Report on Patent Medicines*, to the House of Representatives, made February 6th, 1849. By Hon. THOMAS O. EDWARDS, M. D.

Report on Sulphuric Ether, to the House of Representatives, made February, 1849. By Hon. THOMAS O. EDWARDS, M. D.

THE first named of the above reports gives the formulæ, with a synopsis of the diseases for which they are intended, of all the medicines for which patents have been granted since 1836, together with such as have been restored since that time. It will be remembered that all the specifications and formulæ anterior to this date were consumed by fire. That portion of the contents of this report furnished by the commissioner of patents, is certainly the most curious contribution to empiric literature ever furnished in the history of the country. In the language of Dr. Edwards, "the merriment of him who would cry over the misfortunes and follies of his race, cannot but be excited when he reads this record of uncouth names, incongruous compounds, and incompatible combinations; whilst the sadness of him 'who laughs at folly as it flies' will be provoked at the consciousness of imposition and injury to duped purchasers of these nostrums. The oath prescribed by law and duly administered to each applicant is, that "his invention is new and useful." An examination of the list will clearly exhibit perjury most foul on every page. No combination there "new" is "useful," and no "useful" combination is "new." Almost every prescription combines some active known agent disguised under colors and heralded with a name in many instances as uncouth as it is insignificant or false." To the report we shall again hereafter refer. Dr. Edwards well deserves the thanks of the profession for this report, and he may truly be looked upon as its champion in the reformation of its legal abuses.

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The second report is upon the memorial of Dr. William F. G. Morton, asking compensation from Congress for the discovery of the anæsthetic or pain-subduing property of sulphuric ether. Our limits forbid, even if inclination were present, our entering in detail upon the contents and subject of this report. One portion we cannot however refrain from slightly noticing. It is that where the report states that the *"committee are satisfied that* Dr. MORTON *is entitled to the merit of the discovery."* To this conclusion as our readers must be well aware, we cannot consent. For ourselves we believe, and with the profession generally, we think, that this merit belongs to the late lamented Dr. Horace Wells who first made use of it in the practice of dentistry.

Art. X.—*Reports from Hospitals for the Insane:—Sixth Annual Report of the Managers of the New York State Lunatic Asylum.*—Made to the Legislature February 1st, 1849.

Report of the Pennsylvania Hospital for the Insane, for the year 1848. By Thomas S. Kirkbride, M. D., Physician to the Institution.

Twelfth Annual Report of the Trustees and Superintendent of the Vermont Asylum for the Insane. September, 1848.

The report of Dr. Brigham, the Superintendent of the New-York State Lunatic Asylum, shows that 877 patients have been treated in this Asylum during the past year, and that of this number there were discharged recovered 174; improved, 84; unimproved, 38; died, 86. Total discharges during the year, 382. Remaining in the Asylum Nov. 30th, 1848, 495. The following table shows the statistics of admission and results in this Asylum from its opening, January 16th, 1843, to December 1st, 1848.

Whole number of patients admitted, - - - -	2,014
Total do do discharged, - - - -	1,519
Do do do recovered, - - - -	814
Do do do improved, - - - -	352
Do do do unimproved, - - -	152
Do do do died, - - - - -	200

The report of the Pennsylvania Hospital for the Insane, shows that 403 patients have been treated in the institution during the past year. Of this number, there have been discharged, cured, 120; improved, 47; unimproved, 19; died, 17. Total discharge during the year, 203. Remaining in the Hospital, January 1st, 1849, 200. The following table shows the statistics of admissions and results, from its opening, on the 1st day of June, 1841, to the 31st day of December, 1849.

Whole number of patients admitted, - - - - -	1,391
Total do do discharged, - - - -	1,191
Do do do cured, - - - - -	633
Do do do improved, - - - -	271
Do do do unimproved, - - - -	157
Do do do died, - - - - -	180

The report of Dr. Rockwell, Superintendent of the Vermont Asylum for the Insane, shows that 460 patients have been treated in this institution during the past year. Of this number there have been discharged, recovered, 84; improved, 18; unimproved, 10; died, 36.—

Total discharges during the year, 148. Since the opening of this Asylum, nearly twelve years since, there have been admitted into it 1323 patients. Out of this number, 1011 have been discharged, 592 of whom have recovered, and 143 died. We regret that our limited space forbids of our noticing further in detail the reports.

Art. XI.—*The Therapeutic Indicator.* Compiled from the best modern sources. For the use of those members of the profession whose minds, though well stored with facts and principles, are not able to recall minutiæ at all times when circumstances render accuracy of great moment, and time will not allow of reference to elaborate authorities. By S. P. Whitney, M. D. Second edition. Utica, N. Y.: Hawley, Fuller & Co. Detroit: F. P. Markham & Bro., 1849. 32mo. pp. 112.

The elaborate title of this little volume clearly explains the nature of the design which led to its production. The first part of the work contains an arrangement of the principal articles of the United States Pharmacopœia, in alphabetical order, with the best forms for their exhibition, and the doses for an adult. Next follows the forms of medicines for internal use, which, as simples, are not placed in the first part; and following this are forms of medicines for external and local use—Toxicological and Dietetic Tables—and formulæ for children .In the last part, the leading indications which medicine is capable of fulfilling are arranged in alphabetical order, with references, in such a manner as to point out to the physician almost at a glance, the information desired. Its typographical execution is excellent, and to those who stand in need of such a work it will prove of essential service for reference.

PART THIRD.

FOREIGN MEDICAL RETROSPECT.

PATHOLOGY AND PRACTICAL MEDICINE.

Treatment of Inflammatory Dropsy, associated with Renal Congestion. By C. S. B. Williams, M. D., F. R. S.—In acute or inflammatory dropsy, which is associated with renal congestion, the remedies are at first, blood-letting, especially by cupping to the loins, hydragogue purgatives, and diaphoretics; then some kinds of diuretic medicines. Of the hydragogues, cream of tartar in doses of ʒiv to ʒx, every morning, or alternate morning, and elaterium in doses of gr. ¼, are the most effectual. Blisters may be used after cupping to the loins, or even at once, in asthenic cases, which do not bear much loss of blood. After the use of depletion, cathartics and diaphoretics, diuretics become useful; and Dr. Williams thinks the tincture of cantharides, in doses of m.x to m.xx, or ʒss, thrice a day, the most powerful. But if it irritates the kidneys, without increasing the circulation, it is sure to do harm. Mercury is of doubtful utility in removing congestion of the kidney, as it so speedily and severely salivates in such cases. But in combination with squill, digitalis and henbane, or conium, it is most useful in all other recent cases of dropsy. Together with these remedies, tonic and supporting treatment is indicated in the asthenic and chronic forms of dropsy; and in those cases arising from permanently diseased heart, liver, or kidneys, which have a tendency to recur again and again, it is needful to vary the remedies, as well as to support the strength. "It is an important point, in the treatment of such cases, not to exhaust the powers of any secreting organ, by too long acting on it, and not to expend the efficacy of any one remedy by too long continuing its use. By employing sometimes diuretics, sometimes purgatives, sometimes diaphoretics, and by aiding each of these, by local depletion or derivants, or by stimulants and tonics, according to the temporary prevalence of vascular fulness and excitement, or the converse, much may often be effected to prolong life. It is in the application of these rules to the treatment of prolonged cases, that the skill and resources of the rational practitioner are most tried, and his superiority over the routinist is best proved. It is under these circumstances, too, advantageous to have at command a great variety of medicines, particularly diuretics, and to alternate them or vary them in order to maintain or increase their effect. Those that I have found most effectual are—combinations of mercury, squill, digitalis, and conium (not in acute albuminuria); combinations of decoction of broom, or pyrola umbellata, with nitrate and acetate of potass; the juice or extract of taraxacum, with the same salts or bitartrate of potass, or with nitric acid (particularly in hepatic disease); infusion or tincture of digitalis, with iodide of potassium, and bitartrate of potass (in dropsy after scarlatina); the same, together with increasing doses of tincture of cantharides (in asthenic cases of albuminuria, after cupping to the loins and hydragogue purgatives); ammonia-tartrate and ammonia-citrate of iron in Seltzer water (in asthenic dropsy); gin in cream of tartar beverage (imperial); compound spirit of juniper, spirit of nitric æther, with various others (in cases of debility). The latter stimulant diuretics have disappointed me more than any of the rest." When diuretics and other remedies fail, relief must be afforded by giving exit to a portion of the fluid; and in performing acupuncturation, the tendency to low inflammation and gangrene should be remembered.—*London Jour. Med.*

Rheumatism and Dysmenorrhœa. Their treatment with Lemon-juice.—Medical Society of London.—Mr. Middleton had lately tried, with much advantage, the use of lemon-juice in acute rheumatism.—These cases possessed the usual characteristics of the disease, and in some instances were secondary attacks. In some of the cases the first attack had lasted several weeks before the acute symptoms had been relieved. Under the influence of lemon-juice, however, the pain was usually much mitigated, and in some instances removed in a few hours.—He administered a purgative in the first instance, and then gave half an ounce of lemon-juice every four hours. As he had usually given alkalies with benefit in cases of a similar description, he was at a loss to understand how lemon-juice could act so beneficially.

Mr. Headland said that the profession were indebted to Dr. G. O. Rees for the use of this medicine in rheumatism. It had been employed by that physician and by Dr. Babington, extensively, in Guy's Hospital. The fact was, that it had been too much the fashion to connect the cause of rheumatism with cold. It was evident, from the success of the treatment of rheumatism by lemon-juice, that its origin was due to other causes. A great variety of remedies had been used in the cure of rheumatism, and he (Mr. Headland) believed that other agents acted as beneficially as lemon-juice when they exerted the same action on the blood. Reasoning on the effect of lemon-juice in cases of rheumatism, he had asked himself whether this medicine might not be employed with equal benefit in other diseases. He had found it of most essential service in cases of obstinate dysmenorrhœa. He related one case in which all other remedies had been ineffectual, and in which the continued use of this remedy effected a cure. It was remarkable that lemon-juice had not a tendency to act on the bowels, and where it had, or the constitution was in such a state as to allow it to be carried off by that channel, the medicine did not exert its special influence.

Dr. GOLDING BIRD hoped the time was not far distant when we should treat disease according to its essential characters, rather than in reference to its name. Now, the cases mentioned by Mr. Middleton evidenced no paradox in regard to the treatment of rheumatism by alkalies and acid; for the lemon-juice and the carbonate of soda were essentially the same in their effects upon the system. He then proceeded at some length, which we regret our space does not allow us to report fully, to illustrate the effects of a morbid matter in the blood, in the production of a train of symptoms which were attributed often to another cause; or rather, the condition of the blood was not looked upon as the real and essential link in the chain of causation. Yet this fact could be evidenced by an examination of the secretions, particularly the urine. He illustrated his views with much force and ingenuity by a case of ague and a case of rheumatism. In both these there was a *materies morbi* in the blood, which, as the disease receded, was relieved by being carried off by the kidneys, a larger and larger quantity of solids being found in the urine. This he had always found to be the case in Guy's Hospital, in which he had treated these diseases on the principle of removing the *materies morbi.* He believed that a similar condition of the blood to that which obtained in rheumatism was present in the patient affected with dysmenorrhœa mentioned by Mr. Headland. Now, in rheumatism, how were we to get rid of this morbid matter in the blood? Opium would remove it to some extent; colchicum would remove it.—But it was taking a more common-sense view of the subject to employ some remedy which would eliminate the morbific matter from the circulation at once, by carrying it off by the urine. How, then, were we to effect this? Why, in acute rheumatism, by the administration of cream of tartar, citrate of potash, lemon-juice, or carbonate of soda.—There was little difference between the action of these neutral salts; but lemon-juice, which was a super-citrate of potash, was more quickly absorbed into the blood, and consequently more active in effecting a cure. He had, however, in his own practice, been in the habit of employing the acetate of potash in these cases. This salt, with a mixture of sugar, water, and essence of lemon, acted with marvellous rapidity. In addition to this, given every four hours, he administered five grains of the soap pil!, with opium, night and morning; for this not only relieved pain, but prevented the other remedy being carried off by the bowels. These, with the vapor-bath, constituted his treatment of rheumatism, and the result had been always successful. Soda and lemon-juice equally produced an alkaline condition of the blood, but he preferred the acetate of potash, as it was not liable to be neutralized by the presence of acid in the stomach.—*Med. Gaz.*

Treatment of Softening of the Brain. By Forbes Winslow, M. D. Circumscribed headache, Dr. Winslow regards as one of the earliest symptoms of the insidious malady which, in its early stages, is often overlooked or misunderstood. "In three cases," says Dr. W., "which came under my notice, the only symptom of any importance (which existed for four years before the disease became fully developed), was an intermittent pain, severe in its character, in the posterior part of the head." When the nature of the malady is early discerned, and energetic treatment adopted, Dr. Winslow believes that, in the majority of cases, a cure may be effected: "The great, the primary remedy, is REST FOR THE BRAIN; and, as a sequence, REST FOR THE MIND. Unless this condition be imperatively complied with, nothing—literally, nothing—can be done. The medical treatment consists in a judicious adoption of those means which are calculated to restore a fibrinous or plastic state of the blood, and to promote its healthy circulation in the brain. The patient should live generously, and the digestive functions should be improved by the exhibition of gentle alteratives, tonics, and stimulants. After ramollissement has taken place, these remedies act by determining the blood to a portion of the brain where a defective supply exists; and, as it has been suggested, may act beneficially by causing the production of fibrine and cell-germs from the albumen of the blood. In non-inflammatory softenings, *rubefacients* must be applied, and the shower-bath used. The tonics found most beneficial, have been *zinc, iron, quinine,* and the vegetable acids. The patient will derive an advantage from the use of chalybeate aperient mineral waters. Small doses of phosphorus, perseveringly exhibited, have been found advantageous; I have, in some cases, given the nitrate of silver with benefit. A careful avoidance of mental excitement, and removing the individual from the scene of business, should be strictly enjoined,—the patient carefully abstaining from all excesses, paying particular attention to dietetic rules, refraining from the use of wine, spirits, coffee, and spices."—*Psychological Journal.*

Conclusions respecting Dropsy after Scarlatina. By Dr. F. S. Behrend, of Erlangen.—1. Two forms of Dropsy occur after Scarlet Fever, the *nephritic* and the *anæmic.* 2. These distinctions only point out the original evil, which is the cause of the dropsy. 3. In *hydrops nephriticus,* the main affection is a highly congested state of the kidneys, even proceeding to inflammation. 4. This congestion of the kidneys is just as much a specific effect of the scarlatinal poison, as the cutaneous congestion and eruption. 5. As a consequence of the congestion, there is exudation into the kidneys; and, from rupture of capillary vessels, some effusion of blood, which tinges the urine of a dark chocolate-color. 6. The presence of albumen in the urine is partly the result of exudation, partly of the mixture of blood. 7. The small vessels and tubuli of the kidney are partly compressed, partly obliterated, by the exudation, so as to give a granular appearance; the capillary vessels of the cortical substance are partly empty, partly filled with exudation-corpuscles, without red blood, which produces the pale yellow color of this substance. 8. The tubular substance undertakes the whole function of the kidney. A more powerful flow of blood and urine to this part produces within the tubes a removal and reproduction of epithelium (analagous to the eruption and desquamation in the skin), and finally a discharge of albumen with the urine. 9. The impediment to the function of the cortical substance of the kidneys—the modification to such an extent of the function of the tubuli—prevents the full elimination of urea from the blood. 10. Being retained in the blood, the urea mixes with it; and, in conjunction with the scarlatinal poison, produces nervous symptoms of a narcotic character: delirium, coma, sopor, etc. 11. To this mixture of urea with the blood, as well as to the endeavor to eliminate the scarlatinal poison by the skin, is the watery effusion to be ascribed: the effusion into the serous cavities is entirely a result of the presence of urea in the blood. 12. The danger attending the Dropsy depends on its situation, and on the amount of organic activity which is present. 13. Effusions into the serous cavities are especially dangerous, while cutaneous Dropsy is of less moment; and, of the effusions into serous cavities, that into the peritoneal cavity is less dangerous than those into the cerebral and pericardial cavities. 14. The greater the activity of the organism, the less is the danger; for this shows that the blood has not retained any considerable amount of urea. 15. So long as the urine gives evidence of the presence of blood, with epithelium, besides albumen, and has an acid reaction, the danger is less than when it is clear, phosphatic, and at the same time highly albuminous, as this indicates an extensive and progressive degree of poisoning of the blood. 16. The indications of treatment, in cases where the urine contains blood and albumen, and is acid, are to diminish the congestion of the kidneys and to promote the full elimination of urea. An antiphlogistic and saline treatment is here indicated. 17. As soon as the urine, while it contains albumen, becomes of a pale yellow color, and ceases to have an acid reaction, the antiphlogistic and saline treatment is improper. It is then necessary to counteract the poisoning of the blood, and to increase its plasticity. Iron and tonic medicines are here indicated.

18. The same treatment is necessary, when a weakly, anæmic child has been seized with Dropsy soon after a slight attack of scarlatina. The urine here contains little or no albumen; and the plasticity of the blood is so low, that death will result, if it be not increased by the diligent use of tonics. *Jour. Med. from Jour. für Kinder-Krankheiten.*

Ossification of the Crystalline Lens and Capsule.—By Mr. White Cooper. Ossification of the lens itself is extremely rare. Mr. Tyrrell relates one instance of it, where the capsule was opaque and thick, and contained a mass about equal to one-third of the original lens, hard and brittle, so that it broke on attempting to separate it from the capsule: it was the result of a blow, and was extracted from the eye of a lad of fifteen, who speedily recovered from the operation. A well-marked case is also related by Mr. Wardrop: it was from an eye sent to him by Mr. Allan Burns, of Glasgow. On dissecting back the choroid, the posterior chamber was found filled with a white pulpy mass, and on dividing the crystalline, its central portion was found converted into hard bone. The external laminæ of the lens were soft, those near the centre more consolidated, and the central portion itself of a deep brown color, perfectly osseous, and exhibiting a laminated structure. Case IV. is another example. And it is worthy of remark, that in two out out of the three instances, this remarkable change was the result of a blow upon the eye: of the third there is no history.

Ossification of the capsule of the lens is the most frequent form of osseous cataracts. The character is that of a shell of bony matter irregularly deposited, some parts being thick, others as thin as tissue paper. The color is yellowish, and when viewed in the eye, appear as if dotted with white paint. For the following analysis of the cataract extracted in Case I, I am indebted to Dr. Hoffman, of the Royal College of Chemistry. "The ash left on incineration was found to consist principally of phosphate of lime; it contained besides small quantities of sulphate of lime, and traces of sulphate of potassa and chloride of sodium. It therefore has a very analogous composition to that of bone."

The agonizing pain caused by these cataracts is of a neuralgic character, being the result of the constant irritation of the iris by the pressure of the hard body. So severe is it at times, that it causes temporary delirium; and I have known two instances in which the patients were driven into the pernicious practice of opium-eating, to drown their sufferings in stupor.—*London Jour. Med.*

Calculi of the Pancreas,—Rupture of the Duct—Death by Internal Hemorrhage. By Oscar M. P. Clayton.—J. R., aged 47, an inspector of police, eighteen months before his death, consulted the author, relative to frequently recurring dyspeptic symptoms, and a deep-seated pain at the epigastrium. Two or three months later, during an unusually severe paroxysm of pain, hæmatemesis to a considerable amount occurred. The attacks of pain recurred at intervals of two or three weeks, and when severe, were followed by more or less of hæmatemesis. Emaciation at the same time slowly increased. His death was attended by symptoms denoting some lesion, probably hemorrhage within the abdomen.

On examination of the body twenty-four hours after death, coagulated blood, in large quantity, was found in the peritoneal cavity. The liver and alimentary canal were healthy. But the pancreas was much enlarged, and contained numerous calculi lodged in the dilated trunk and ramifications of the excretory duct. The duct itself presented an opening, through which the largest calculus had escaped into the cavity of the abdomen. This calculus, two-thirds of an inch in length, consisted of carbonate of lime, with traces of phosphate of lime, animal matter, and fat. *Ibid.*

Post-Mortem Examination of Dr. SAMUEL JOHNSON.—By JAMES WILSON. The following short account of the last illness and autopsy of the great lexicographer, Dr. Johnson, were taken from the MS. folio of "Dissections of the late Mr. Wilson," and was published in a late number of the London Journal of Medicine, in a paper on the last illness of this great man, by George James Squibb, Esq., from which we copy:

Wednesday, Dec. 15th, 1784, opened the body of Dr. Samuel Johnson for Mr. Cruikshank, in the presence of Drs. Heberden, Brocklesby, Butler, Mr. C., and Mr. White. He died on the Monday evening preceding. About a week before his death, Mr. C., by desire of his physicians, scarified his legs and scrotum, to let out the water which was collected in the cellular membrane of those parts, Dr. Johnson being very impatient to have the waters entirely gone. On the morning of the day on which he died, he repeated the operation himself, and cutting very deep, lost about ten ounces of blood; he used a lancet for this purpose; he was in too weak a state to survive such an apparently trifling loss. For several years past, he had been troubled with asthma, for which he commonly used to take opium, and found that nothing else was of any service to him; he had discontinued this practice, however, some years before he died.

On opening into the cavity of the chest, the lungs did not collapse as they usually do when air is admitted, but remained distended, as if they had lost the power of contraction; the air-cells on the surface of the lungs were also very much enlarged; the right lobe adhered very strongly to the diaphragm; the internal surface of the trachea was somewhat inflamed; no water was found in the cavity of the thorax. The heart was exceedingly large and strong; the valves of the aorta were beginning to ossify; no more fluid than common was contained in the pericardium. In the abdomen seemed to be incipient peritoneal inflammation and ascites; the liver and spleen were firm and hard; the spleen had almost the feel of cartilage. A gall-stone, about the size of a pigeon's head, was taken out of the gall-bladder; the omentum was exceedingly fat; nothing remarkable was found in the stomach; the folds of jejunum adhered in several places to one another; there was also a strong adhesion by a long slip between the colon and bladder; the pancreas was remarkably enlarged; the kidney of the left side tolerably good, some hydatids beginning to form on its surface; that of the right side was almost entirely destroyed, and two very large hydatids formed in its place. Dr. Johnson never complained of any pain in this part: the left testicle was perfectly sound in structure, but had also a number of hydatids formed on its surface, containing a fatty gelatinous fluid; the right testicle had hydatids likewise, but the spermatic vein belonging to it was exceedingly enlarged and varicose. The cranium was not opened.

N. B. Mr. White, assisting me to sew up the body, pricked his finger with the needle; the next morning he had red lines running up the arm, and a slight attack of fever.

SURGERY.

On Certain Tumors of the Mammary Gland. By John Birkett, Esq.—At a recent meeting of the Royal Medical and Chirurgical Society, the author related cases illustrative of the general characters and structural anatomy of the morbid productions, or new growths, to which it was his especial object to direct attention. They are characterized by a remarkably lobulated exterior, and a succulent, glistening aspect, on section. They consist of a large quantity of uniting, or areolar tissue, and present, when carefully examined by the aid of the microscope, the cæcal terminations of gland tissue. Nucleated bodies are found in these hypertrophic growths, but these are merely embryonic elements, possessed in common by all new growths. The origin of these growths are due to excess of nutrition; they resemble the healthy gland structure, but have no lactiferious tubes. They usually occur before the age of thirty, and are more frequent in the unmarried than the married; the function of the mammary gland is generally unimpaired. Their more ordinary potion is on the surface of the gland, and they may attain a very large size, their existence not being necessarily accompanied by pain. They are harmless, but usually not amenable to general remedies, nor to any treatment except excision. The author concluded his paper by some remarks on hypertrophic growths generally of the breast, dividing them into perfect and imperfect hypertrophy. The former most commonly occurs about puberty, and consists in great increase in the breast, from development of true gland tissue. The latter, or imperfect hypertrophy, he subdivides into lobular, general, and cystic. The first has been alluded to already. In the second, the true gland is astrophied by the encroachment of the new growth, so as to be no longer recognizable. The cystic form is regarded by the author as imperfect gland tissue, (hydatid disease of Cooper: cysto-sarcoma of Muller.)

Amputation at the Ankle-joint. Richard Mackenzie, Esq.—Read recently before the Med. Chir. Soc., of Edinburgh, an account of a method of amputation at the ankle-joint, by single flap, which he had devised, and which had been five times performed on the living subject by himself and Dr. Douglas Maclagan.

The author recommended this operation in some cases to which Mr. Syme's method was not easily applicable, especially when the integuments on the outer side of the heel were in an unsound state, the flap being derived from the skin covering the inner and lower sides of the calcaneum, and supplied with blood by the branches of the posterior tibial artery.

Mr. Syme remarked, that it was important to know, that by this mode of operating, a better flap might in certain cases be obtained. He considered the operation difficult, and believed that the great length of the flap might render it liable to sloughing. His own mode of operation had now been followed by himself, in between thirty and forty cases, and in a number of cases by other surgeons, yet he was not aware of any instance in which sloughing had been observed, attributable to violence necessary in detaching the soft parts from the calcaneum. From this cause, therefore, experience had shown that no risk was to be apprehended."—*Month. Journ. and Retros.*

Physiology of the Process of Repair and Reproduction after Injuries. By James Paget, Esq.—Prof. Paget, in a recent Lecture at the Royal College of Surgeons of England, thus sums up this matter:—We recognise (says he) the impregnated germ properties which, in favorable conditions, issue in the manifestation of a power capable of developing it into the perfection of a certain specific form and structure: that perfection is maintained through part of the life of the complete being, and is maintained by means, to the explanation of which the accepted doctrines of the assimilative force and of the successive development of tissue-germs are either inapplicable or insufficient. But its maintenance is explicable with the hypothesis that the same power as that which was manifested in the development from the germ is still in action, and actuates, as it did in the germ, all organization in conformity with the law of the specific character. So, too, the gradual changes that ensue in the course of life, after the attainment of the most perfect state, may be referred to the continuous operation of the same power, modified in each individual according to the specific type which has been observed in all the members of the same species. And, finally, the same power, working with an apparently increased energy, determines the restoration of lost parts, and the repair of injuries,—working, in all cases, towards the restoration of the perfection of the specific form, by the same means, and in the same method, and within the same limits.—*Med. Gaz.*

Amputation at the Hip-joint—Successful.—By Prof. Syme. The following account of a case of successful amputation at the hip-joint for necrosis of the femur following amputation in the lower part of the thigh, was communicated by its author to the Medico-Chirurgical Society of Edinburgh, in March last, and published in the London Journal of Medicine for July, 1849, from which we extract:

The whole shaft of the bone was necrosed, and the exfoliation extended quite close to the joint, thus showing the necessity of the hip-joint operation. There was no tendency to separation, but a large quantity of new bone had formed round the necrosed shaft. The patient, a laborer, æt. 24, was admitted on the 7th September, 1848, having, a few hours before admission, received the following injuries, occasioned by a fall of earth while working in a railway tunnel. A very severe compound dislocation of the right ankle joint, with fracture of the tibia above the malleolus, and another fracture a little above the middle; the lower end of the fibula was exposed for several inches, and very much comminuted. There were several lacerations of the soft parts—great effusion of blood, accompanied by the admission of a considerable quantity of air beneath the integuments. The tibia and fibula of the left leg were fractured above the ankle—there was great eversion of the foot, with enormous swelling and ecchymosis of the whole limb; so much so, that it was difficult to say which limb was the most severely injured. Under these circumstances, an attempt was made to save both. The exposed portion of the fibula was removed, and proper splints applied. For ten days every thing went on favorably; but, after that, he was seized with bowel complaint, lost his appetite, his urine became scanty and high-colored; he had a heavy dingy appearance, and his whole body assumed a yellowish color; in short, he exhibited all the symptoms of phlebitis. However, in about a week, his health improved, but the discharge from the wound, and from incisions made in different parts of the leg, increased to such an extent, that, as a last resource, amputation was performed in the lower third of the thigh by the circular incision. Two circumstances worthy of notice occurred during the operation. The first of these was the greatly thickened state of the coats of the femoral vein; the other the very dense, and almost ivory appearance of the shaft of the femur. The wound, at the end of three weeks, was entirely healed, except at one small part, where the bone was felt to be bare; but the looked-for exfoliation did not become detached. Three months passed over, during which repeated attempts were made to ascertain if the dead bone would separate. The femur got thickened, and the patient suffered much pain, more especially over the trochanter and neck of the bone. Abscesses formed in all directions, there was a profuse discharge, and the patient's health became seriously affected. At a consultation, on the 12th September, it was agreed that amputation at the hip-joint was required: and it was performed on the following day by Mr. Syme, by anterior and posterior flaps. Little blood was lost, although twenty-one vessels required ligature. The operation has proved completely successful.

Operation for Osseous Cataracts. By W. White Cooper, Esq.—In the performance of the operation, the almost entire obliteration of the anterior chamber by the projection of the lens and iris, renders it extremely difficult to pass the knife across it: in such a case, it would be found easier to direct the incision obliquely. That should be free; and if the cataract knife do not make it of sufficient size, the blunt-pointed sabre knife cutting on the convex edge, will enlarge it with facility. In the event of the adhesions to the cornea being so extensive as to preclude the possibility of performing the operation in this manner, it may become a question whether an incision directly across the cornea may not be the best mode of proceeding; the object in view is not to give sight, but simply to relieve suffering, and it must be familiar to many, that similar wounds of the cornea inflicted by accident unite kindly if judiciously treated. The great difficulty, however, is the extraction of the cataract. The iris having lost its elasticity, and being bound by adhesions to the lens, and possibly to the cornea, does not yield to pressure; and the lens, being solid, cannot be forced through the contracted pupil, even after the adhesions have been divided, with such an amount of force as can be prudently applied. The better way then, is to break down the osseous shell and remove it piece-meal, having previously divided the adhesions by sweeping round the margin of the pupil with a fine iris knife. Before placing the flap in apposition, a careful examination should be made, to see that none of the fragments are left. After the lids have been closed, two or three folds of rag, dipped in cold water, should be applied to the eye so long as is felt agreeable, and a full dose of hyoscyamusadm inistered.—*Ibid.*

Dissections of Stumps after Amputation. By Mr. Spence.—Mr. Spence, before the Medico-Chirurgical Society of Edinburgh, produced several dissections of the stumps. He first called the attention of the society to the mass of muscular tissue, which overlapped the bones in some of his preparations. The leg belonging to one of these stumps had been amputated by the flap operation, twelve years before the patient's death, and the stump was still well formed, and covered with muscle. He was inclined to doubt, whether the atrophy was so considerable in the muscles of stumps as was generally believed. It had been stated by Mr. Hargrave, that after amputations performed during early life, the bone included in the stump continues to grow in length, and two of the bones (femora) now before the society, seemed to have acquired such increase. In the upper part of a femur, from the University Museum, there was likewise an apparent increase in length, but this was probably due, not to any fresh deposit of osseous tissue, but to the altered obliquity of the neck and shaft of the bone, consequent upon the weight of the patient's body having been, after the amputation, allowed to rest principally upon the other leg. Two preparations exhibited an elongated point of bone protruding from the surface, which had been divided by the saw; the end of the bone was *conical*, not *rounded off*, as after amputations in the adult. Mr. Spence believed, that *neuromata* were unavoidably formed, when nerves were divided,—by whatever method amputation was performed, and however deeply the nerves were covered. When a nerve was cut across, the neurilemma retracted, the nervous fibrillæ projected, and ultimately became firmly connected with lymph effused about the point of section. Some fibrillæ were spread out upon the surface of the lymph, others were imbedded and interwoven in it. The tumors thus formed were not productive of pain, unless exposed to pressure between the bone and skin; or so thinly covered, as to be affected by atmospheric influence. The size of these neuromatous tumors was not dependent upon their being more or less thickly covered, and in some of Mr. S.'s dissections, very large ones were exposed, deeply seated in the stumps. An extended investigation, by means of similar dissections, might lead to more determinate views as to the plans of operating best adapted for securing a well-formed stump. *London Jour. of Med.*

MIDWIFERY.

On the Electrical Treatment of Amenorrhœa. By Golding Bird, M. D. The following remarks of Dr. Bird, are so full of interest, that we extract them from his late pamphlet on "Electricity and Galvanism, in their Physiological and Therapeutical Relations:"—"We have twenty-four cases of amenorrhœa reported; the youngest 15, the eldest 25 years of age, all unmarried:—

"Of these, 4 were chlorotic, 6 but slightly so, 12 not at all so, and 2 complicated with hysteria.

"Of these the remedy succeeded in all except the four chlorotic girls.

"In electricity we possess the only really direct emmenagogue which the experience of our profession has furnished us with; I do not think I have ever known it to fail to excite menstruation where the uterus was capable of performing this function. Disappointment will, however, most certainly result, if we have recourse to electricity merely because a girl does not menstruate; and we must never lose sight of the fact, that, after all, the large majority of cases of amenorrhœa depend upon an anæmic condition; and the patient does not menstruate, simply because she has no blood to spare. Nothing can be more ridiculous than applying electricity, or any other local stimulant to the uterus when chlorosis exists; the first great indication will be, to restore general health, give iron to make up for the previous deficiency of that element in the blood, and then, and not before, think of stimulating the uturus. It is true that, in a large proportion of cases, the catamenia will appear as soon as the chlorosis is cured,—of course, in such cases, there will be no need of the employment of electricity; but still a large number will occur, in which, even after the complete relief of the chlorotic and anæmic condition, the uterus remains torpid and refuses to act. In such cases, a few shocks, transmitted through the pelvis, seldom, if ever, fail in effecting menstruation. I have repeatedly known the catamenia, although previously absent for four months, appear almost immediately after the use of electricity; in more than one case the discharge actually appeared within a few minutes. The mode in which electricity has been generally employed, has been by transmitting a dozen shocks from an electric jar, holding about a pint, through the pelvis; one director being placed over the lumbo-sacral region, the other just above the pubes. In private practice, in which the employment of the cumbrous electric machine is very inconvenient, I have substituted with advantage the induced currents of the electro-magnetic apparatus, the conductors being placed as before. The alternating current may be used in these cases, as the elecricity appears simply to act as a local stimulant, quite independent of exciting any uterine contraction."

Period of Menstruation in the East-Indian Female. By Prof. ALLAN WEBB, of Calcutta.—I have not found that East Indian girls and European-bred girls born in India, menstruate earlier than in Europe; and I have had for nearly three years a wide field of observation in the hospitals of the Government Orphan School, (under my charge,) in which there are rarely less than 200 girls. It is not common for menstruation among them to begin until fourteen. The fact of a first menstruation is always reported to the head mistress, who has never known one single instance of its occurrence before the age of thirteen. Very often it is delayed till sixteen seventeen or eighteen. There is no difference in this respect between European-bred girls and East Indian. Between thirteen and fourteen it is most common. It follows, therefore, that climate has less to do with this function, than has been supposed, especially when we add that instances occur in Bengal, of native women having children at fifty and sixty. Twins were born as late in life as fifty-eight years in one instance and sixty-five in another: in the last case, however, the mother died.—*Pathologia Indica.*

MISCELLANEA.

A new Method of detecting Arsenic in the Viscera and in Organic Substances. By M. LANSAIGNE.—M. J. L. Lassaigne boils the substances suspected to contain arsenic in a mixture of sulphuric and nitric acids, slightly diluted with water: the resulting liquid contains all the arsenic present, and has not the usual viscosity of the fluid matters to be tested. Solid matters may be treated in the following manner:—Having been divided into small pieces, they are boiled in concentrated sulphuric acid, until incipient carbonization takes place; then, when cool, concentrated nitric acid in excess is added to the carbonized mass, and the mixture is boiled until the nitric acid is entirely decomposed. The residue is diluted with from five to six times its volume of distilled water; it is then filtered, and Marsh's test applied.

A weight of sulphuric and nitric acids, equal to the weight of the substances requiring analysis, is considered by M. Lassaigne to be the suitable proportion. This method M. Lassaigne has found to be completely successful in separating arsenic from even the smallest quantities of organic matter.—*Med. Gaz. from Journal de Chimie Medicale.*

Presentation of a Testimonial to JOHN FORBES, ESQ., M. D., F. R. S.—The committee appointed at the general meeting, by the subscribers to the Forbes Testimonial, to expend the sum collected, in the purchase of a piece of plate, presented this testimonial to Dr. Forbes, on the evening of the 3d of May, 1849. The committee invited the subscribers in London and its vicinity to meet them on the occasion, and nearly one hundred professional gentlemen obeyed the summons. The testimonial consists of a very handsome piece of plate, a candelabrum and epergne, beautifully designed and executed by Messrs. Smith, of Duke-street, Lincoln's-inn-fields. The stem is supported by three figures, representing Industry, Health and Hope, corresponding to Dr. Forbes' motto, "labore, robore, spe." Mr. Stanley, president of the Royal College of Surgeons, presented the testimonial to Dr. Forbes.—*Lond. J. M.*

Medicine in Turkey—A Medical Journal in the Ottoman Empire.—An important sign of the times and of the advancement of Medical Science in that country. It is called, *La Gazette Médicale de Constantinople,* and is published in the French and Turkish languages. The editor is Haïr-Ullah-Effendi, who signs himself, "*Docteur en Médecine et Directeur des Etudes de l'Ecole Imperiale de Galata-Serai.*

Resignations and New Appointments in Foreign Colleges, Hospitals, &c.

WILLIAMS, C. J. B., has resigned, lately, his professorship of Principles and Practice of Medicine, &c., in University College, London.

GUTHRIE, Mr., has been appointed Consulting Surgeon to the Westminster Hospital, vacant by the death of Mr. White.

JOBERT, M., (de Lamballe,) appointed Surgeon to Hôtel-Dieu, at Paris, in the place of M. Blandin, lately deceased.

WALSHE, W. H., M. D., elected Professor of Medicine to University College, in place of Dr. WILLIAMS, resigned.

PARKES, E. A., M. D., appointed Physician and Professor of Clinical Medicine in University College Hospital, in room of Dr. WALSHE.

JENNER, WILLIAM, M. D., has been appointed Professor of Pathological Anatomy in the University College, London.

CARPENTER, W. B., M. D., the author of several valuable treatises on Physiology, has been appointed Professor of Medical Jurisprudence in University College, London.

OBITUARY.

BOURGERY, M., at Paris, of cholera, on the 8th of June. He was extensively known for his researches in anatomy, and was the author of that great work entitled "*Anatome de l'homme.*"

BARON, M., of the Hôpital des Enfans Malades, lately, in Paris. He was well known and esteemed, and extensively consulted in the diseases of children.

SERRE, M., Professor of Clinical Surgery in the University of Montpellier, lately, of apoplexy, in his 49th year.

CARIOLI, Dr., Professor of Clinical Surgery in the University of Pavia, recently.

CARMICHAEL, R., Esq., M. D., on the 8th June, in his 70th year, by accidental drowning. This announcement of the melancholy death of this distinguished man will be received with much regret the world over where the science of medicine is cultivated. In the language of the writer of a memoir of his life in the Dublin Medical Press, for July 4th:—"We were about to say that a brilliant light had been extinguished by the death of this great and good man. But it is not so. His bright example will long light congenial spirits in his profession to tread the path he trod, and encourage them to emulate the energy, the perseverance, the virtues, that made him an ornament to his profession, a credit to his country, an honor to human nature itself.

'Tanto homini nullum par eulogium.'

Even his death has 'marked him extraordinary;
And all the courses of his life have shown
He was not in the roll of common men.'

His last will bears witness to the same. In the part of it that relates to the public, and of which it is within our province to speak, he has bequeathed £8000 for the improvement of the Richmond Hospital School of Medicine, of which he was, in conjunction with Mr. Adams and Dr. McDowell, the principal founder, and to which he had given for the last eight years £50 a year to be bestowed in premiums. To the same school he has left £2000, the interest of which is to be annually bestowed, in premiums, by examination, on the students of the school who distinguish themselves most in the cultivation of the medical sciences. For a somewhat similar purpose, and with a view to the promotion of medical reform, he has left £3000 to the College of Surgeons, the interest of which is to accumulate for four years, and then to be awarded by the Council of the College to the authors of the best essays on subjects specified in the will; and lastly, he has left to the Medical Benevolent Fund Society £4,500, making (along with £500 given to it during his life) his contribution to this excellent charity, for the relief of his distressed professional brethren, or their widows and orphans left in want, amount to £5000."

Clift, William, Esq., F. R. S., on the 20th of June, at his residence in London, aged 77. Mr. Clift for nearly half a century was Conservator of the Hunterian Museum of the Royal College of Surgeons of England, having been appointed to that office on the purchase of the collection by government of the the executors of John Hunter, whose apprentice and assistant he was for many years, and also a fellow-laborer in the formation of that magnificent monument of the genius of his immortal master. Mr. Clift was a Fellow of the Royal Society, and greatly esteemed by the present and former distinguished *savans* of that body, particularly the late Sir Joseph Banks, Dr. Wollaston, and, indeed, so highly did Sir Humphrey Davy (then President of the Royal Society) think of the lamented deceased, that he used his influence to admit Mr. Clift a Fellow before the increase of the now expensive admission fees; this gentleman being the last admitted on the old scale.

THOMSON, ANTHONY TODD, M. D., on the 3d of July, in London. Dr. Thomson was Professor of Materia Medica and Medical Jurisprudence in University College, London, and the author of several valuable and distinguished works. His biographer, in the London Medical Times, thus speaks of this remarkable man:—"Let those who regard the general practitioner as one of an inferior class, or as one who, in the multiplicity of his engagements, is obliged to abandon all independent observation, confess their error, in observing how Dr. Thomson, while engaged in the largest practice in his own part of London, appeared as the only instructor in a very important branch of medical study—published works which, even after nearly forty years, remain unexcelled—agitated unceasingly to obtain from the medical corporations consideration and justice for his professional brethren—and, in fact, realized, in his own person, the beau-ideal of an accomplished professional man, at once literary and practical, a profound scholar, and an excellent practitioner—doing his duty to those whose lives, under Providence, were committed to his charge, and, at the same time, working honestly and disinterestedly to advance the art which he practised, and to promote the good of those who practised it with him."

ANDREWS, GOLDWYER, on the 28th of July, of rupture of the aorta, in the 68th year of his age. He was one of the Surgeons of the London Hospital, and a member of the Council and Court of Examiners of the Royal College of Surgeons of England.

REID, JOHN, M. D., at St. Andrews, Fifeshire, on the 30th of July. He was Professor of Anatomy and Medicine in the University of St. Andrews, and well known by his contributions to the literature of Pathological Anatomy, &c.

SCUDAMORE, Sir CHARLES, on the 4th of August, of valvular disease of the heart, well known by his Treatise on the Nature and Cure of Gout, Gravel, Rheumatism, etc., and several contributions to periodical medical literature.

KEY, CHARLES ASTON, Esq., on the 23d of August, of cholera, after an illness of about twenty hours. Mr. Key had acquired an extensive and deserved reputation by his folio monograph on Lithotomy and Hernia. He was also the editor of Sir Astley Cooper's great work on Hernia. At the time of his death he was Senior Surgeon to Guy's Hospital, and, in conjunction with the late Mr. Morgan, at one time was Professor of Surgery. The London Medical Gazette, in speaking of his death, very truly says, "his untimely loss will be deeply lamented not only by those who knew him in private life but by the whole profession."

PART FOURTH.

EDITORIAL

AND

AMERICAN MEDICAL RETROSPECT.

Cholera and Diseases of the Bowels—their Mortality.—The following statistical tables of the mortality from cholera and diseases of the bowels, in three of the principal cities of the Atlantic seaboard, during the prevalence of the late epidemic, with the statistics of mortality from diseases of the bowels for the corresponding weeks of last year, we have collected from reliable sources, and with no small degree of pains. To those of our readers, who may be engaged in the investigation of the laws and statistics of epidemics, particularly of cholera, they will possess much interesting and important information. In our own city, during a period of twenty-two weeks, that in which the epidemic raged amongst us, it will be seen that the general mortality bill was, according to the City Inspector's Report, nearly triple that of last year, and that the whole number of deaths from cholera was 5,122. It will be observed, however, that cholera alone has not directly produced all this difference, but that the ordinary diseases of the season have proved much more fatal, and have lent a material aid in swelling our mortality bills. We cannot record this fact without remarking that it is contrary to what was observed in Paris during the last epidemic, when the mortality from other diseases than cholera was less than in ordinary times. May not this occurrence be accounted for by remembering that it is possible for epidemic cholera to be transformed into epidemic dysentery. Cruveilhier records such an occurrence in the epidemic of 1832, and an examination of the following tables will, most certainly show a disposition to a like occurrence.

1848.									1849.								
Week ending	Total Mortality.	Cholera Asphyxia.	Cholera Infantum.	Cholera Morbus.	Diarrhœa.	Dysentery.	Other Diseases of the Bowels.	Tot. from Cholera & Dis. of Bowels.	**Week ending**	Total Mortality.	Cholera Asphyxia.	Cholera Infantum.	Cholera Morbus.	Diarrhœa.	Dysentery.	Other Diseases of the Bowels.	Tot. from Cholera & Dis. of Bowels.
May 20,	295	..	2	..	4	5	16	26	May 19,	323	6	..	6	5	6	11	34
" 27,	247	..	5	..	4	4	13	26	" 26,	294	13	..	1	4	3	16	37
June 3,	228	..	4	..	2	4	7	17	June 2,	270	29	2	9	11	6	12	69
" 10,	245	..	4	2	1	7	8	22	" 9,	409	121	4	12	17	11	16	181
" 17,	250	..	7	..	5	4	21	37	" 16,	425	145	5	13	4	1	15	183
" 24,	261	..	8	..	7	5	10	30	" 23,	473	152	10	10	10	3	16	211
July 1.	278	..	22	..	8	11	14	55	" 30,	734	286	34	15	17	18	19	389
" 8,	285	..	29	..	10	18	19	76	July 7,	702	317	31	10	25	25	7	415
" 15,	284	..	26	4	13	24	20	83	" 14,	991	484	64	18	55	44	15	680
" 22,	299	..	29	1	19	26	15	90	" 21,	1409	714	102	34	61	71	29	1011
" 29,	403	..	52	6	19	44	21	142	" 28.	1352	692	108	24	49	79	18	970
Aug. 5,	368	..	44	3	12	41	20	120	Aug. 4.	1278	678	105	20	54	58	29	944
" 12,	338	..	52	1	22	41	16	132	" 11,	1011	423	86	19	64	68	23	683
" 19,	351	..	46	..	10	46	13	115	" 18.	968	387	98	13	55	78	21	652
" 26,	321	..	37	2	18	34	13	104	" 25,	749	233	67	8	52	78	23	461
Sept. 2.	309	..	31	1	20	37	17	106	Sept. 1.	687	117	68	3	40	79	14	375
" 9,	278	..	22	2	11	33	15	83	" 8,	520	94	47	4	24	87	13	239
" 16,	282	..	27	1	13	38	14	93	" 15.	378	36	23	0	21	65	15	160
" 23,	261	..	17	..	7	22	10	56	" 22,	366	21	19	1	14	55	18	128
" -30,	236	..	9	..	3	27	8	47	" 29,	319	11	12	2	18	45	16	104
Oct. 7,	271	..	6	1	12	28	13	60	Oct. 6,	312	6	12	2	8	38	12	78
" 14,	260	..	3	3	8	19	10	43	" 13,	249	3	4	1	7	29	18	62
Totals,	6350	..	482	27	228	518	313	1563	Totals,	15,219	5122	901	225	615	949	478	8061

The following tables of the mortality from the same diseases during the same period of time, in the city of Boston, we have compiled from the mortality bills published in the Boston Medical and Surgical Journal. This table, it will be observed, embraces a period of sixteen weeks, showing that the general mortality bill for this year, is proportionally only about double that for the same period of time in 1848, and that the number of deaths from cholera was 602.

1848.									1849.								
Week ending	Total Mortality.	Cholera Asphyxia.	Cholera Infantum.	Cholera Morbus.	Diarrhœa.	Dysentery.	Other Diseases of the Bowels.	Tot. from Cholera & Dis. of Bowels.	**Week ending**	Total Mortality.	Cholera Asphyxia.	Cholera Infantum.	Cholera Morbus.	Diarrhœa.	Dysentery.	Other Diseases of the Bowels.	Tot. from Cholera & Dis. of Bowels.
July 1.	62	..	2	..	..	..	4	6	June 29.	88	2	1	1	1	2	2	9
" 8,	53	..	..	..	1	2	2	5	July 6.	74	2	3	3	1	2	2	13
" 15,	48	..	..	..	..	2	4	6	" 13.	69	13	1	..	2	1	4	21
" 22	71	..	5	1	2	3	15	26	" 20,	119	15	2	1	2	3	12	35
" 29,	101	..	8	1	..	13	28	50	" 27,	105	10	4	3	4	3	15	39
Aug. 5,	92	..	5	2	3	3	32	45	Aug. 4,	157	52	7	4	4	13	12	92
" 12.	119	..	7	1	..	8	43	59	" 11,	240	94	4	4	9	20	35	166
" 19,	109	..	3	..	..	21	43	69	" 18	257	111	4	1	13	21	31	181
" 26,	111	..	1	2	1	23	43	68	" 25	215	75	7	6	12	13	23	136
Sept. 2.	108	..	4	..	2	18	34	58	Sept. 1,	236	94	3	7	5	28	31	168
" 9.	97	..	..	..	..	25	28	53	" 8,	205	61	7	1	17	34	23	143
" 16.	89	..	4	..	5	24	9	42	" 15,	160	42	6	..	3	21	21	96
". 23.	101	..	3	..	..	22	21	46	" 22,	149	22	7	2	4	26	15	82
" 30.	63	..	5	..	..	9	8	22	" 29.	109	5	2	2	6	15	16	46
Oct. 7;	75	..	1	..	..	21	20	41	Oct. 6,	82	4	4	1	2	15	7	33
" 14.	67	..	..	..	..	11	9	18	" 13.	78	..	1	..	8	9	10	28
Totals,	1366	..	48	7	14	205	342	614	Totals,	2343	602	63	36	93	226	259	1288

The following table exhibits the mortality from the same diseases in Philadelphia, during the epidemic, which lasted a period of seventeen weeks. The proportional increase in the general mortality of the present over the past year, it will be seen, is about the same as that of Boston, and about one-third less than in our own city. The whole number of deaths from cholera alone was 1022.

1848.									1849.								
Week ending	Total Mortality.	Cholera Asphyxia.	Cholera Infantum.	Cholera Morbus.	Diarrhœa.	Dysentery.	Other Diseases of the Bowels.	Tot. from Cholera & Dis. of Bowels.	Week ending	Total Mortality.	Cholera Asphyxia.	Cholera Infantum.	Cholera Morbus.	Diarrhœa.	Dysentery.	Other Diseases of the Bowels.	Tot. from Cholera & Dis. of Bowels.
June 3,	130	..	6	1	1	0	6	14	June 2	138	3	3	1	3	2	3	15
" 10,	165	..	16	8	3	4	10	36	" 9,	130	3	..	1	2	2	6	14
" 17,	181	..	22	3	6	5	6	30	" 16,	119	5	6	3	4	1	1	20
" 24,	244	..	45	3	4	16	8	76	" 23,	184	14	20	5	2	31	4	48
July 1,	220	..	48	3	5	13	12	81	" 30,	343	80	40	9	13	15	10	167
" 8.	228	..	53	3	10	11	12	89	July 7,	404	170	53	11	13	14	8	269
" 15	208	..	41	4	4	20	13	82	" 14,	458	179	57	6	15	29	7	293
" 22,	182	..	33	3	5	14	12	67	" 21,	505	195	68	5	12	28	19	327
" 29,	194	..	34	2	8	20	4	68	" 28,	415	136	58	3	10	38	9	254
Aug. 5.	160	..	35	1	2	7	10	55	Aug. 4,	360	95	54	9	12	40	8	218
" 12,	174	..	21	..	8	20	7	56	" 11,	303	40	46	1	13	42	7	149
" 19,	174	..	21	1	10	16	10	58	" 18,	328	42	56	5	18	40	6	167
" 26,	154	..	19	..	2	17	10	48	" 25,	248	16	32	2	12	46	13	121
Sept. 2,	168	..	13	..	4	17	9	48	Sept. 1.	231	18	23	2	10	39	8	100
" 9.	134	..	16	..	4	10	9	39	" 8.	214	16	14	2	8	29	4	73
" 16.	132	..	10	..	6	9	6	31	" 15.	207	4	11	..	8	28	13	64
" 23.	135	..	5	..	1	14	9	29	" 22,	183	6	9	2	4	23	4	48
Totals,	2983	..	435	25	83	213	153	902	Totals,	4770	1022	550	67	159	447	130	2347

Our exchange journals have not as yet furnished us much information respecting the progress and mortality of this disease. In Montreal we learn from the British American Journal, that the duration of the epidemic was about sixteen weeks, and the number of deaths was 499. At Toronto, the number of deaths up to August 29th, was 380, and in Quebec, up to August 23, 943. In Buffalo, the epidemic lasted a period of one hundred days, during which time, 854 deaths from cholera took place. In Cincinnati, the duration of the disease was a little over eight months, and the number of deaths therefrom, 4350. In Columbus, it prevailed a period of near 18 weeks, and the deaths were 308. In St. Louis, the disease first made its appearance about the 1st of January, of the present year, from that time to the 6th of August, a period of seven months, 4297 fell victims to the disease, and this in a population (as is supposed) of about 90,000. In New-Orleans, the cholera prevailed from the 12th of December, 1848, to the 18th of August, 1849, a period of a little over *one hundred and eighty* days, during which period, the mortality from this disease was, according to Dr.

Simons, near 4,000, or according to the editor of the New-Orleans Medical and Surgical Journal, 3,646, exclusive of a few cases carried out of the city for interment, this in a population of about 150,000.

Medicinal Extracts.—The preparation of the various kinds of vegetable extracts in a reliable condition, has always been a desideratum in pharmacy. It has been generally, and we think correctly, thought that, in this form, the active medicinal properties of most of the vegetable narcotics, etc., might be obtained and kept in a more enduring state of preservation and administered more conveniently, than in any other. The careful and observing practitioner, however, has so often been disappointed in witnessing the well-known-effects of the vegetable upon his patients, when they (especially the american,) have been administered, that he has almost ceased to depend upon them. This result has directly flown, not from the fact that the form is not the best that can be adopted, but from circumstances connected with their mode of preparation. On examining the american, and a greater portion of the foreign extracts contained in our drug shops, throughout the whole country, it will be found that they possess but little (most of them not any) of the characteristics known to be absolutely necessary for a good extract; their blank tar-like appearance and their burnt smell, too clearly attest this fact. The process by which their evaporation is mostly carried on, viz: over the naked fire in an uncovered open pan with a chance heat, results in the injury, if not destruction, of the properties of the product. To these circumstances, the inefficiency of these extracts should be mainly attributed.

We have had, lately, sent us for our inspection and use, samples from the works of Mr. Tilden & Co., New Lebanon, N. Y. They have been prepared to meet the necessity so generally felt in the whole country, for not only *pure* but *reliable* extracts, and from the examination we have given them in our office, and the results we have obtained in practice, we can say that in them we possess "an article in which the *peculiar characteristics* and *active constituents* of the vegetable is *unaltered;* representing in medicinal efficacy the material from which they have been produced." In reference to these extracts we have received letters from Professor Clark, of this city, and Dr. Campbell, of Pittsfield, Mass., who together have recently visited the establishment of the Messrs. Tildens. Prof. Clark, thus speaks of the result of his visit to the manufactory of these extracts:

"I have lately visited the manufactory of these extracts. After inspecting the whole process and examining a large number of preparations, I became so fully persuaded that these gentlemen have fallen upon the best plan of concentrating and preserving the active principles, especially of the narcotic vegetables, that I have voluntarily offered to them any assistance that I can render in introducing their medicines to the notice of the profession; being persuaded that these extracts must possess the efficiency and the uniformity of strength so necessary to the successful use of this class of remedies, and I may add, so long sought for in vain.

Should your conviction of the value of these preparations correspond with my own, after you have examined them and tried them in practice, perhaps you may think it due alike to the profession and to the gentlemen who are improving the instruments by which we work, to call the attention of your readers to the improvements which I cannot doubt this process secures."

Dr. Campbell's letter may be found appended to the advertisement of Messrs. Tilden & Co., in this number, to which we would respectfully call the attention of our readers.

RESIGNATIONS AND NEW APPOINTMENTS IN HOSPITALS AND MEDICAL COLLEGES IN THE UNITED STATES.

MEIGS, C. D., M. D., Prof., has resigned his position as one of the physicians to the Lying-in Department of Pennsylvania Hospital.

HAYWARD, GEORGE, M. D., Prof., has resigned his Professorship of Surgery, in the Medical Department of Harvard University.

FOX, GEORGE, M. D., has resigned his appointment as one of the Surgeons of Willis Hospital. He has held this appointment since the opening of the hospital, a period of 15 years.

TUCKER, DAVID H., M. D., one of the Editors of the Philadelphia Medical Examiner, has been appointed Professor of the Theory and Practice of Medicine in Hampden Sidney College.

NEILL, JOHN, M. D., has been appointed Surgeon of Willis Hospital, in place of Dr. Fox, resigned.

BIGELOW, HENRY J., has been elected Professor of Surgery in Harvard University, in place of Dr. Hayward, resigned.

CARSON, JOSEPH, M. D., has been appointed physician to the Lying-in Department of Pennsylvania Hospital in place of Dr. Meigs, resigned.

BARTLETT ELISHA, M. D., Prof., has resigned his professorship on the Theory and Practice of Medicine in Pennsylvania University, and has been elected Professor of the same in the University of Louisville, in place of Dr. Drake, resigned.

YANDELL, L. P., M. D., Prof., has been transferred from the chair of Chemistry and Pharmacy in the University of Louisville, to that of Physiology and Pathological Anatomy; and Benjamin Silliman, Jr., M. D., of New Haven, succeeds him.

Short, Charles W., M. D., Prof., has resigned his position as Professor of Chemistry and Pharmacy in the University of Louisville. He has been elected "Emeritus" Professor of the same. Lewis Rogers, M. D., Louisville, succeeds him.

Drake Daniel, M. D., Prof., has resigned his appointment as Professor of Pathology and Practice of Medicine, in the University of Louisville, and accepted that of Theory and Practice of Medicine, in Ohio Medical College, in place of Prof. Harrison, transferred.

Stewart F. Campbell, M. D., has been appointed Physician to the Marine Hospital Quarantine, S. I., N. Y.

Bayless, George W., M. D., has been appointed Professor of Descriptive Anatomy in the Ohio Medical College.

Annan, Samuel, M. D., Prof., has been transferred to the chair of Theory and Practice of Medicine in Transylvania University, vacated by the resignation of Dr. Bartlett, and William M. Bolling, M. D., late Professor in Memphis Medical College, succeeds him in the Chair of Obstetrics and the Diseases of Women and Children.

Caldwell, Charles, M. D., Prof., has resigned the chair of Professor of the Institutes of Medicine and Medical Jurisprudence, in the University of Louisville, and Prof. Yandell, has been transferred to the same.

Bullitt, H. M., M. D., has been elected to the chair of Materia Medica, vacated by the resignation of Prof. Mitchell.

Davis, N. S., M. D., has been elected Professor of Physiology and Pathology, in the Rush Medical College.

Fitch, G. N., M. D., Prof., has resigned the chair of Professor of the Principles and Practice of Medicine in Rush Medical College, and Prof. Thomas Spencer, late of Geneva Medical College, has been elected to succeed him.

Hunt, Thomas, M. D., has been elected Professor of Physiology and Pathology in the University of Louisiana, in place of the late Prof. J, Harrison, deceased.

Lawson, L M., M. D., Prof., has been transferred to the newly created Chair of Physiology and general Pathology, in the Ohio Medical College, and the late Prof. J. P. Harrison, was appointed to succeed him.

Shotwell, John F., M. D., Prof., has been transferred from the Chair of Professor of Anatomy and Physiology in the Ohio Medical College, to a new one, on Surgical Anatomy and Clinical Surgery, recently constituted. Since the death of Prof. Harrison, Prof. Shotwell, has been appointed his successor in the Chair of Materia Medica, and Therapeutics.

Baker, A. H., M. D., of Cincinnati has been appointed Professor of Surgery in Indiana Central Medical College.

Catalogue of Medical Books.—We have received from Messrs. Woods, a new catalogue of their extensive stock of valuable medical books. Our readers, we have no doubt, will be pleased to know that an extensive collection of all the rare and expensive English and French works may here be obtained.

PATHOLOGY AND PRACTICAL MEDICINE.

TREATMENT OF DIARRHŒA AND DYSENTERY BY SPIRITUS PYROXYLICUS.—BY D. W. YANDELL, M. D.—(*West. Jour. of Med. and Surg.*) My attention was first called to the use of pyroxylic spirit, or medicinal naphtha, in diarrhœa, by an article in the Gazette de Hôpitaux. The efficacy of this agent was so confidently affirmed by Dr. Laverotte, of Lyons, that I was induced to make a trial of it in diarrhœa, and by analogy was subsequently led to administer it also in dysentery. Several cases of diarrhœa, as well as dysentery, successfully treated by this agent alone, is related. It appears to me, from my experience with the remedy, that it is most frequently efficacious when given in doses of twenty drops, at intervals of three hours. Touching the *modus operandi* of this agent, I confess myself at a total loss to determine. I can but ask, with Dr. Lavirotte—Does this medicine act like opium and the other calmants; as alum and columbo, and other astringents; as nitrate of silver, by substitution; or rather, has it a special action which modifies the intestinal secretion? It is too easily borne to warrant its being compared to nitrate of silver, and its antispasmodic properties are, to say the least, very insignificant; while its nauseous, sharp and bitter flavor, would seem to indicate that it exercised an astringent influence. I have prescribed this same agent with marked success in several cases of bowel diseases occurring in children.

[Dr. H. T. Child, of Philadelphia, has recently reported several cases of cholera successfully treated by this remedy.]

INTESTINAL AUSCULTATION.—By Prof. HOOKER, of Yale College.—Dr. Hooker calls attention to an application of the art of auscultation to the sounds produced in the intestinal canal. For twenty years he has habitually attended to the sounds produced in the abdomen in disease. He observes that in *Asiatic cholera* the sounds, when the ear was applied to the abdomen, were peculiar—at least so different from what he has observed in other diseases—that they seemed distinctly characteristic of that disease. These sounds manifested a rapid commotion of the whole intestinal canal, and might be compared to those produced by shaking together several flasks of various sizes filled with water. Frequently the sounds appeared to indicate that the rapid peristaltic motions were suddenly arrested and reversed by an anti-peristaltic action, which occurrence immediately preceding a paroxysm of vomiting. In *colica rachialgia,* (lead colic,) the peristaltic action is wholly or partially suspended. He says that some cases he has watched for two, three, and even six days, without observing the least sound of peristaltic motion. More commonly, however, the stillness of the intestinal canal is occasionally broken for a few moments by a dull rumbling sound, indicating a slight sluggish action in a limited portion of intestine. Often there is a transient blowing or sub-whistling sound, seemingly produced by wind crowded through a contracted portion of intestine. During the whole course of the disease, all the intestinal motions appear weak and sluggish ; the sounds not having the suddenness and regular succession of healthy peristaltic action. In *dysentery* there are no morbid sounds sufficient to distinguish it from other diseases. In *diarrhœa* this method of exploration is valuable in forming an estimate of the severity and obstinacy of the complaint. The auscultator may discover by mediate application of the ear, or by means of the stethoscope—the former has an advantage over the latter, viz., that it does not require the bed-clothing of the patient to be removed—variations of sound, produced in the intestinal canal, which a little practice will enable him to recognise as signs affording clear and valuable indications. These signs must be learned by the practitioner's own experience, rather than from any description which the experience of otherscan furnish.

Treatment of Aphtha. By J. Yale Ware, M. D.—The following simple prescription has proved a specific in my hands, in many hundred cases of aphtha. I learned it from Dr. Eli Ives of New-Haven. ℞ Ipecac. gr. vi.; tinct. opii. ; ess. menth. p. gtt. iv. ; boiling water xxiv. teaspoonful, *Mx.* Sweeten with loaf sugar. Dose, a teaspoonsful every two hours. At the same time apply to the tongue equal parts of a powder of borax and loaf sugar. The above generally cures in two days occasionally in delicate subjects, the disease returns again, when the remedy will require repeating. I have never known the above to fail.

MISCELLANEA.

Southern Medical Reports.—Dr. E. D. Fenner, one of the late editors of the New-Orleans Medical Journal, has recently issued a circular in relation to a contemplated volume with the foregoing name. The object of this work is to collect and present in a *durable form* the observations of physicians residing in different parts of the southern states, with the view to the cultivation of medical science, and the formation of the medical history of the times. It will consist of GENERAL and SPECIAL REPORTS ; the first to contain concise accounts of the *meteorology, medical topography,* and *prevailing diseases* throughout the year ; the second will be devoted to *extraordinary cases, surgical operations, etc.* We wish Dr. F. full success in his praiseworthy and important undertaking.

Fisk Prize Fund.—The trustees of this fund have selected for the year 1849–50, the two following subjects, and offer a premium of fifty dollars for the best dissertation on each. viz. :

1st. The History of Medical Delusions of the present and former times.

2d. Asiatic Cholera, (so called). Its history, nature, and best mode of treatment.

Competitors are expected to transmit, free of expense, to one of the trustees, or the secretary of the Board, on or before the first Wednesday of May, 1850, their dissertations, with a motto written thereupon, and accompanied with a sealed letter having the same motto inscribed upon the outside, and their name and place of residence within. The award of the trustees will be made known at the annual meeting of the Rhode Island Medical Society, to be held at Providence, on the last Wednesday in June, 1850. L. AUGUSTUS ARNOLD, M. D., and GEORGE CAPRON, M. D., of Providence, and HIRAM ALLEN, M. D., of Cumberland, R. I., *Trustees;* THOMAS H. WEBB, M. D., of Boston, *Secretary.*

MEDICAL SCHOOLS IN NEW-YORK.—The number of the students already in attendance exceeds our expectation. Judging from present appearances, the classes during the present session will, in all probability, equal those of last year. This, when we take into consideration what has transpired during the past summer, is more than we could reasonably expect, and speaks well of the due appreciation of the profession at large, of the superior advantages offered for the pursuit and acquisition of medical knowledge in our city. We have often remarked that New-York must of necessity soon become the emporium for medicine, as she is now that of commerce, in the New World. The realization of this remark, we feel confident, is near at hand. Our superior advantages have only to be seen and known to be fully appreciated. Our resources have only to be properly and legitimately developed, when the end desired will be speedily secured—the work permanently accomplished.

NEW-YORK SOCIETY FOR THE RELIEF OF THE WIDOWS AND ORPHANS OF MEDICAL MEN.—The *Anniversary Dinner* of this Society will take place on Tuesday, November 20th, at 7½ P. M., at the *Astor House*. Members of the profession desirous of attending, are requested to make *early application* to the Stewards. Price of tickets, $3.

Stewards.

EDWARD L. BEADLE, JOHN T. METCALFE,
JOHN G. ADAMS, SAMUEL T. HUBBARD,
WILLIAM ROCKWELL, CHARLES D. SMITH,
ABRAM DU BOIS.

OBITUARY.

STONE, JOSEPH, M. D.—On the 27th of June last, of typhus fever, in the 60th year of his age. Dr. Stone, was a resident of the town of Hardwick, Mass., where he had practised his profession with eminent success for a period of 35 years.

WINTERBOTTOM, JOSEPH, M. D., at South Britain, on the 27th of August last, aged 30 years. The deceased was for some time Resident Physician of the Nursery Hospital, Randall's Island, N. Y. He was an ardent and devoted student in his profession, and few at so early an age have attained in it, so high a position, or such extensive acquirements.

Harrison, John P., M. D., Prof.—On the 2d of September last, of cholera, at his residence in Cincinnati. At the time of his death he was Professor of Materia Medica and Therapeutics in Ohio Medical College, 1st Vice-President of the American Medical Association, and one of the editors of the "Western Lancet." He has fallen in the meridian of life, and in him the profession has lost a physician of learning and inexpressible zeal, a copious writer, an able and impressive teacher, a gentleman and a christian.

Butterfield, John, M. D., Prof., on the 7th of September last. at Salisbury, N. H., of Phthisis, in the — year of his age. He was at the time of his death Professor of the Theory and Practice of Medicine in Starling Medical College, Ohio, and editor of the Ohio Medical and Surgical Journal. As a lecturer and teacher, Dr. Butterfield had but few equals, his talents were of a superior order. As an Editor he was peculiarly adapted to his calling, and we fear it will be difficult to find his successor, who will possess the same rare combination of talents which characterized the deceased.

Brigham, Amariah, M. D., on the 9th of September last, at Utica, N. Y., of dysentery, aged 51 years. The deceased, as our readers must be well aware, was the distinguished Superintendent and Physician of the N. Y. State Lunatic Asylum, and editor of the "American Journal of Insanity." He was a man of extraordinary talents. He contributed largely to the literature of our profession, especially to that department over which he presided with much distinguished reputation and success. In the language of one of our cotemporaries, "He was an author whose opinions carried weight with them while he was living; and although now dead, yet, through the volumes that he prepared in the course of intervals of leisure—a system of economy which no physician should neglect—he will exert an influence over other minds, and contribute to the onward progress of human happiness through ages yet to come."

Houston, S. A., M. D., at his residence in this city, (N. Y.) on the 16th September, of hemorrhage from the lungs, aged 33 years. Dr. Houston was well known as the editor, for some time, of the "New-York Lancet." He possessed a finished education, and no small degree of original talent.

Russell, Joseph P., M. D., U. S. Army, on the 19th of September, at Fort Columbus, Governor's Island, N. Y., of typhoid pneumonia, aged 60 years. He was among the oldest of the army medical officers, having been in the service since 1813. Twenty-five years of this period were spent in the various posts in New-York harbor. His duties during the past summer had been arduous in the extreme, and added to the anxieties of such responsible stations, aided materially in bringing about the decease of an officer whose loss the service will not be able easily to supply. His devotion to his duties was without limit, and yet not more marked than the gentleness and kindness with which it was ever performed. He was a native of Bennington, Vermont.

Watson, Lotan G., M. D., recently in North Carolina. Dr. W. for two years was Professor of Theory and Practice of Medicine in the Transylvania University.

Collins, Chalkley, M. D., of cholera, on the 8th of August last, in this city, in the 24th year of his age.

Stickney, J. Dwight, M. D., recently, of dysentery, at his residence in this city.

Professional Earnestness.—Before we close this volume we wish to say a few words to our readers and contributors. The space we have left is just sufficient for it. As you have seen in the obituary notices in this number, death has been busy in our ranks. Some of the most laborious and valuable members of our profession have been cut down in the midst of their usefulness. Harrison, Brigham, and Butterfield, of the editorial corps, are no more; and truly can we say, they have died with the harness upon them. Employing well the talent committed to their trust, their writings have shed about them a halo of glory which death renders even more brilliant. Great as their loss may be to us, there is a consolation found in the fact of their glorious devotion to the intellectual advancement of our time-honored profession—their untiring professional earnestness. Is there not taught us a lesson in all this? Are we to remain participators simply of the fruits of their labors, or are we not rather to contribute our mite to that stream of knowledge which it was their highest ambition to swell? Let us all remember, in the language of the lamented Harrison, that "to him that stirs up the gift that is within him, and who courts with fond assiduity every opportunity for the fair and apposite exertion of his powers, shall be multiplied the choicest favors of the supreme Rewarder. He shall have peace and joy, and contentment, and strength in his soul; he shall see the work in which his hands are engaged, prosper; he shall be like a fruitful tree in a propitious soil, refreshed by the well-spring of living waters, which is ever kept supplied by the river of life; upon whose branches the birds of heaven carol; upon whose leaves the dews of heaven distil, and which brings forth fruit for the good of mankind. But the idle and inert, those whose nature is steeped to the very lips in Lethe's flood, they have no eye for intellectual excellence, no ear for the sweet sounds of that voice which calls the universe to action, and no heart to receive and echo back the sentiment of the great and good and wise of all ages, that life is given to man, with all 'his large discourse of reason, looking before and after,' to be filled up with deeds of useful industry, and to be crowned with acts of beneficence and piety." Sincerely we hope that the pages of our coming volume may attest intellectually the professional earnestness of our readers and collaborators.

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ERRATA.

Page 138, lines 7–8 from bottom, for "reviving," read revising.
" 143, 3 lines from top, after "neatness," insert and.
" " 10 " " for "effected," read affected.
" " 21 " " for "death rather than life," read life rather than death.
" " 19 " bottom, for "one," read an.
" 144, 25 " " for "of the many," read of many.
" 211, 13 " " for "Nepus," read Nessus.
" 215, 16 " " for "time," read true.
" 264, 10 " " dele "nearly."
" 265, 6 " " for "Renaud's," read Renouard's.
" 346, 10 " top, for "the softening," read no softening.
" 370, 2 " bottom of note, for "takes," read take.
" 395, 1 " top, for "thirteenth," read thirtieth.
" 417, 8 " for "is," read are.

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